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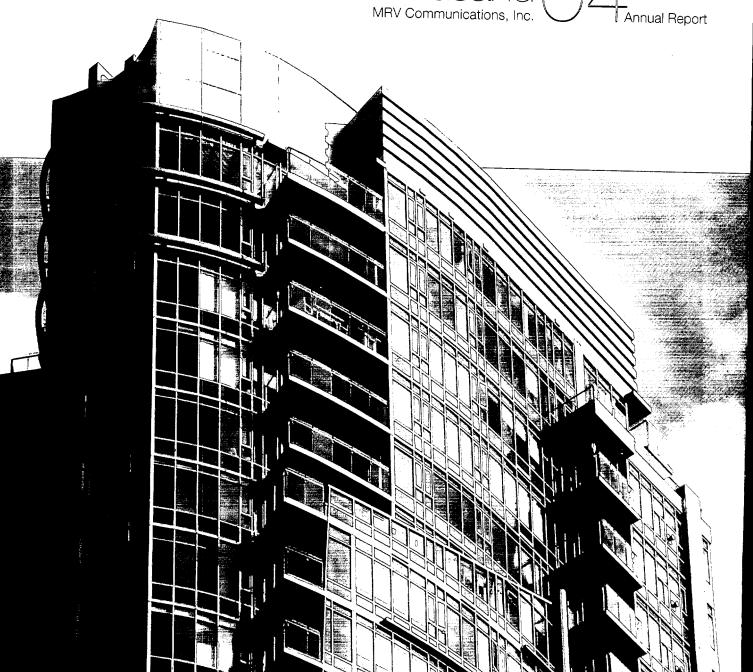
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Service Aware Networking Solutions TM

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Building a Great Company, Together.



Year in Review

Two thousand and four was a successful year of ongoing improvements for MRV. Consolidated revenues for the year 2004 grew nearly 14%. In each quarter, we realized revenue at a higher level than the corresponding quarter in the prior year. Operations at MRV Communications, as you know, is comprised of two distinctly separate and different business units, our Network Equipment group and our Optical Component group. For 2004, our Network Equipment business unit was profitable from operations. At the same time, we invested heavily in LuminentOIC, our optical components subsidiary. LuminentOIC is a market leader in the sweet spot of the optical components industry; in Fiber-to-the-Premises ("FTTP"). Our market leadership in FTTP components was validated by winning the lion's share of the Verizon FTTP deployment in North America. Laying fiber to residential neighborhoods and customer premises allows high speed access to the full spectrum of digital age services. FTTP and FTTN (Fiber-to-the-Node) deployment in North America is going to extend to over 30 million residential customers over the next few years. Our continued innovation in this field is expected to drive accelerated growth at LuminentOIC.

Network Equipment Business Unit

On an operational basis, our Network Equipment business was profitable in 2004 and close to break-even for the first six month of 2005. In Metro Ethernet equipment, we address a fast growing market, which according to some analysts, will reach \$400 million in 2005, and is expected to double next year, and then – double again in 2007. We believe that MRV has approximately 10% share of the Metro Ethernet market, comprising customer access gear and edge switches and routers.

To grow at the rate of the market, MRV needs to execute well and take advantage of the opportunity in Metro Ethernet. We need to leverage on two key advantages. First — our innovative products, and second — our access to markets through partnerships with other equipment vendors and through our own system integration offices in Europe. We positioned the company around solution-selling in order to create value for our customers and shareholders. Accordingly, we branded the term: "Service-aware networking solutions**IM."

Growth requires increased presence in certain geographies and vertical markets. Accordingly, in 2005 we plan to increase our worldwide sales and support organization. Naturally, the addition of sales personnel will contribute to some incremental expenses. While we have held operating expenses at a constant level for over 8 quarters, we determined that investment in sales, support and marketing resources is required in order to assure growth in our networking business. We will continue to watch our operating expenses closely, but we are confident that the investment will pay off.

Product Leadership

As carriers refocus their investment on the access portion of the network, MRV is ready to meet their needs. We are in a position to offer a broad range of solutions starting from entry level customer demarcation products, through powerful 10-GbE and MPLS/VPLS products. The ubiquitous Ethernet, the most widely deployed networking technology, has evolved for more than 20 years to be the networking technology of choice for enterprise LAN networks. Metro Ethernet solutions from MRV enable carriers to deploy Ethernet technology to provide services to their enterprise customers. Our "Service-aware networking solutionsTM" products enable service providers to realize the new revenue potential of a new generation of broadband access infrastructure.

Optical Components Business Unit

Current deployment by Verizon and any anticipated deployments by SBC in Fiber-to-the-Premises bodes well for continued growth in our market segment. The number of homes passed with FTTP deployments by Verizon and SBC combined is projected to grow from 1 million homes in 2004, to 13 million homes in 2007. LuminentOIC is a commanding leader in FTTP components with its Integrated Triplexer. During 2004 and through the date of this letter, a LuminentOIC Integrated Triplexer powers virtually every home gateway for each residential customer that signs up for the Verizon service. LuminentOIC has been an early innovator in providing triple play capability on a single fiber strand. It has a 10-year history of supplying optical component, for fiber deployment in residential neighborhoods.

Triple-play FTTP deployment, allows carriers to offer virtually unlimited data transmission, phone service, as well as a full suite of CATV services. Unlike DSL services, FTTP allows for much higher data rates, and has no distance limitation. High-speed broadband connectivity is a tremendous competitive advantage in itself. It could potentially unleash a wave of innovations and new applications in areas such as telecommuting, telemedicine, video-on-demand, and gaming. FTTP also allows direct video services without the need to deploy next generation Cable TV set top boxes. By natively carrying traditional CATV signals over fiber, traditional Cable TV infrastructure can be directly used for video services.

At LuminentOIC, we recorded an impressive 20% growth for the year, due to the aggressive FTTP revenue increase. We have a low cost manufacturing strategy using our in-house optical chip foundry, to meet customer capacity and cost requirements. We also use China based

contract manufacturing for certain portions of our production line. To date, we have maintained an on-time delivery schedule for our largest customer of the Integrated Triplexer, and expect to be able to meet growing customer demand for the coming years.

Thank you for your support of MRV Communications. We are excited about our continued success and the possibilities for the future. We remain focused on our strategy and look forward to capitalizing on the opportunity of building a great company together.

Sincerely,

Noam Lotan

President and Chief Executive Officer

Statement of Responsibility

Responsibility for the integrity and objectivity of the financial information rests with MRV's management. Management has always assumed full accountability for maintaining compliance with our established financial accounting policies and for reporting our results with objectivity and the highest degree of integrity. It is critical for investors and other users of the financial statements to have confidence that the financial information we provide is timely, complete, relevant and accurate. The accompanying financial statements have been prepared in accordance with accounting principles generally accepted in the United States ("U.S. GAAP"), applying certain estimates and judgments as required.

Management, with oversight of MRV's Board of Directors, has established and maintains a strong ethical climate so that our affairs are conducted to the highest standards of personal and corporate conduct. Management has established a system of internal control that provides reasonable assurance as to the integrity and accuracy of the financial statements. MRV's policies and practices reflect corporate governance initiatives that are compliant with the listing requirements of NASDAQ and the corporate governance requirements of the Sarbanes-Oxley Act of 2002, including:

- Our Board has adopted clear corporate governance policies;
- A majority of our Board members are independent of MRV and its management;
- All members of our key Board committees the Audit Committee, the Compensation Committee, and the Nomination and Governance Committee – are independent;
- The independent members of our Board meet regularly without the presence of management;
- We have a clear code of business conduct and corporate governance;
- The charters of our Board committees clearly establish their respective roles and responsibilities;

We have a hotline available to all employees, and our Audit Committee has procedures in place for the anonymous submission of employee complaints on accounting, internal controls or auditing matters; and

We have adopted a code of ethics that applies to our principal executive officer and all members of our finance department, including the principal financial officer.

Ernst & Young LLP, an independent registered public accounting firm, reports directly to the Audit Committee of the Board of Directors. Ernst & Young LLP is retained to audit MRV's consolidated financial statements and management's assessment of the effectiveness of MRV's internal controls over financial reporting. Its accompanying reports are based on audits conducted in accordance with the standards of the Public Company Accounting Oversight Board (United States).

We are committed to improving shareholder value and fully understand and embrace our fiduciary oversight responsibilities. We are dedicated to ensuring that our high standards of financial standards of financial accounting and reporting as well as our underlying system of internal controls are maintained. Our culture demands integrity and we have the highest confidence in our processes, out internal controls, and our people, who are objective in their responsibilities and who operate under the highest level of ethical standards.

Noam Lotan

President and Chief Executive Officer

Shay Gonen Chief Financial Officer

Selected Financial Data

Five Years Ended December 31, 2004 (in thousands, except per-share amounts)

The following selected financial data should be read in conjunction with "Management's Discussion and Analysis of Financial Condition and

Results of Operations" and the financial statements of the Company, including the notes thereto.

| For the year ended December 31: | 2004 | 2003 | 2002 | 2001 | 2000 |
|---|-------------|-------------|-------------|-------------|--------------|
| Statement of Operations Data: | | | | - | |
| Revenue | \$271,658 | \$238,983 | \$ 252,532 | \$ 332,844 | \$ 319,394 |
| Cost of goods sold | 179,780 | 164,893 | 169,566 | 267,389 | 203,371 |
| Gross profit | 91,878 | 74,090 | 82,966 | 65,455 | 116,023 |
| Operating costs and expenses: | | | | | |
| Product development and engineering | 24,949 | 30,972 | 49,358 | 94,813 | 74,078 |
| Selling, general and administrative | 74,083 | 62,868 | 90,047 | 164,785 | 124,700 |
| Amortization of intangibles | 34 | 33 | 140 | 126,484 | 66,814 |
| Impairment of goodwill and other intangibles | • | 356 | 72,697 | - | - |
| Impairment of long-lived assets | - | - | 17,038 | - | _ |
| Total operating costs and expenses | 99,066 | 94,229 | 229,280 | 386,082 | 265,592 |
| Operating loss | (7,188) | (20,139) | (146,314) | (320,627) | (149,569) |
| Other expense, net | 456 | 6,438 | 23,695 | 11,200 | 8,782 |
| Loss before provision (benefit) for taxes, extraordinary gain and cumulative effect of an accounting change | (7.644) | (26,577) | (170,009) | (331,827) | (158,351) |
| Provision (benefit) for taxes | 3,036 | 2,361 | 13,395 | 4,475 | (5,398) |
| Loss before extraordinary gain and cumulative effect of an accounting change | (10,680) | (28,938) | (183,404) | (336,302) | (152,953) |
| Extraordinary gain, net of tax | • | 1,950 | - | 9,949 | - |
| Cumulative effect of an accounting change | - 1 | - | (296,355) | - | - |
| Net loss | \$ (10,680) | \$ (26,988) | \$(479,759) | \$(326,353) | \$ (152,953) |
| Basic and diluted loss per share | \$ (0.10) | \$ (0.26) | \$ (5.25) | \$ (4.27) | \$ (2.33) |
| Basic and diluted weighted average shares outstanding | 104,793 | 102,022 | 91,421 | 76,369 | 65,669 |
| At December 31: | 2004 | 2003 | 2002 | 2001 | 2000 |
| | 2004 | 2003 | 2002 | 2001 | 2000 |
| Balance Sheet Data: | | | | | |
| Cash and cash equivalents | \$ 77,226 | \$ 87,602 | \$ 99,445 | \$ 164,676 | \$ 210,080 |
| Working capital | 113,995 | 108,051 | 91,188 | 175,966 | 366,752 |
| Total assets | 272,078 | 272,684 | 302,980 | 887,260 | 1,097,621 |
| Total long-term liabilities | 28,663 | 27,415 | 4,056 | 102,254 | 154,504 |
| Stockholders' equity | 135,559 | 140,128 | 154,476 | 584,676 | 781,555 |

Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with Consolidated Condensed Financial Statements and Notes thereto included elsewhere in our Annual Report on Form 10-K. In addition to historical information, the discussion in our Annual Report on Form 10-K contains certain forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated by these forward-looking statements due to factors, including but not limited to, those set forth in the following and elsewhere in our Annual Report on Form 10-K. We assume no obligation to update any of the forward-looking statements after the date of our Annual Report on Form 10-K.

Overview

We design, manufacture, sell, distribute, integrate and support communication equipment and services, and optical components. We conduct our business along three principal segments: the networking group, the optical components group and development stage enterprise group. Our networking group provides equipment used by commercial customers, governments and telecommunications service providers, and include switches, routers, physical layer products and console management products as well as specialized networking products for aerospace, defense and other applications including voice and cellular communication. Our optical components group designs, manufactures and sells optical communications components, primarily through our wholly owned subsidiary LuminentOIC, Inc. These components include fiber optic transceivers for metropolitan, access and Fiber-to-the-Premises, or FTTP, applications. Our development stage enterprise group seeks to develop new optical components, subsystems and networks and other products for the infrastructure of the Internet.

We market and sell our products worldwide, through a variety of channels, which include a dedicated direct sales force, manufacturers' representatives, value-added-resellers, distributors and systems integrators. We have operations in Europe that provide network system design, integration and distribution services that include products manufactured by third-party vendors, as well as our products. We believe such specialization enhances access to customers and allows us to penetrate targeted vertical and regional markets.

We were organized in July 1988 as MRV Technologies, Inc., a California corporation and reincorporated in Delaware in April 1992, at which time we changed our name to MRV Communications, Inc.

We generally recognize product revenue, net of sales discounts and allowances, when persuasive evidence of an arrangement exists, delivery has occurred and all significant contractual obligations have been satisfied, the fee is fixed or determinable and collection is considered probable. Products are generally shipped "FOB shipping point" with no right of return, except on rare occasions in which event our accounting is as

described below. Sales of services and system support are deferred and recognized ratably over the contract period. Sales with contingencies, such as right of return, rotation rights, conditional acceptance provisions and price protection are rare and have historically been insignificant. We do not recognize such sales until the contingencies have been satisfied or the contingent period has lapsed. We generally warrant our products against defects in materials and workmanship for one to two year periods. The estimated costs of warranty obligations and sales returns and other allowances are recognized at the time of revenue recognition based on contract terms and prior claims experience. Gross profit is equal to our revenues less our cost of goods sold. Our cost of goods sold includes materials, direct labor and overhead. Cost of inventory is determined by the first-in, first-out method. Our operating costs and expenses generally consist of product development and engineering costs, or R&D, selling, general and administrative costs, or SG&A, and other operating related costs and expenses.

We divide and operate our business on the basis of our three principal segments. We evaluate segment performance based on the revenues and the operating expenses of each segment. We do not track segment data or evaluate segment performance on additional financial information. As such, there are no separately identifiable segment assets nor are there any separately identifiable Statement of Operations data below operating income (expense). The networking and optical components groups account for virtually all of our overall revenue.

Our business involves reliance on foreign-based entities. Several of our divisions, outside subcontractors and suppliers are located in foreign countries, including Argentina, China, Denmark, Finland, France, Germany, Israel, Italy, Japan, Korea, the Netherlands, Norway, Russia, Singapore, South Africa, Switzerland, Sweden, Taiwan and the United Kingdom. For the years ended December 31, 2004, 2003 and 2002, foreign revenues constituted 77%, 78% and 74%, respectively, of our revenues. The vast majority of our foreign sales are to customers located in the European region. The remaining foreign sales are primarily to customers in the Asia Pacific region.

Critical Accounting Policies

Our discussion and analysis of our financial condition and results of operations are based upon our financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities.

We believe that the estimates, assumptions and judgments involved in the accounting policies described below have the greatest potential impact on our financial statements, so we consider these to be our critical accounting policies. Because of the uncertainty inherent in these matters, actual results could differ from the estimates we use in applying the critical accounting policies. Certain of these critical accounting policies affect working capital account balances, including the policies for revenue recognition, allowance for doubtful accounts, inventory reserves and income taxes. These policies require that we make estimates in the preparation of our financial statements as of a given date. However, since our business cycle is relatively short, actual results related to these estimates are generally known within the six-month period following the financial statement date. Thus, these policies generally affect only the timing of reported amounts across two to three quarters.

Within the context of these critical accounting policies, we are not currently aware of any reasonably likely events or circumstances that would result in materially different amounts being reported.

Revenue Recognition. We generally recognize product revenue, net of sales discounts and allowances, when persuasive evidence of an arrangement exists, delivery has occurred and all significant contractual obligations have been satisfied, the fee is fixed or determinable and collection is considered probable. Products are generally shipped "FOB shipping point" with no right of return. Sales of services and system support are deferred and recognized ratably over the contract period. Sales with contingencies, such as right of return, rotation rights, conditional acceptance provisions and price protection are rare and insignificant and are deferred until the contingencies have been satisfied or the contingent period has lapsed. We generally warrant our products against defects in materials and workmanship for one to two year periods. The estimated costs of warranty obligations and sales returns and other allowances are recognized at the time of revenue recognition based on contract terms and prior claims experience. Our major revenue-generating products consist of: fiber optic components; switches and routers; console management products; and physical layer products.

Allowance for Doubtful Accounts. We make ongoing estimates relating to the collectability of our accounts receivable and maintain a reserve for estimated losses resulting from the inability of our customers to meet their financial obligations to us. In determining the amount of the reserve, we consider our historical level of credit losses and make judgments about the creditworthiness of significant customers based on ongoing credit evaluations. Since we cannot predict future changes in the financial stability of our customers, actual future losses from uncollectable accounts may differ from our estimates. If the financial condition of our customers were to deteriorate, resulting in their inability to make payments, a larger reserve may be required. In the event we determined that a smaller or larger reserve was appropriate, we would record a credit or a charge to selling and administrative expense in the period in which we made such a determination.

Inventory Reserves. We also make ongoing estimates relating to the market value of inventories, based upon our assumptions about future demand and market conditions. If we estimate that the net realizable value of our inventory is less than the cost of the inventory recorded on our books, we record a reserve equal to the difference between the cost of the inventory and the estimated net realizable market value. This reserve is recorded as a charge to cost of goods sold. If changes in

market conditions result in reductions in the estimated market value of our inventory below our previous estimate, we would increase our reserve in the period in which we made such a determination and record a charge to cost of goods sold.

Goodwill and Other Intangibles. We adopted SFAS No. 142, "Goodwill and Other Intangible Assets," effective January 1, 2002. In accordance with SFAS No. 142, we no longer amortize goodwill and intangible assets with indefinite lives, but instead measure these assets for impairment at least annually, or when events indicate that impairment exists. We continue to amortize intangible assets that have definite lives over their useful lives.

Income Taxes. As part of the process of preparing our financial statements, we are required to estimate our income taxes in each of the jurisdictions in which we operate. This process involves us estimating our actual current tax exposure together with assessing temporary differences resulting from differing treatment of items, such as deferred revenue, for tax and accounting purposes. These differences result in deferred tax assets and liabilities, which are included in our Balance Sheet. We must then assess the likelihood that our deferred tax assets will be recovered from future taxable income and to the extent we believe that recovery is not likely, we must establish a valuation allowance. To the extent we establish a valuation allowance or increase this allowance in a period, we must include an expense within the tax provision in the Statement of Operations.

Significant management judgment is required in determining our provision for income taxes, deferred tax assets and liabilities and any valuation allowance recorded against our net deferred tax assets. Management continually evaluates our deferred tax asset as to whether it is likely that the deferred tax assets will be realized. If management ever determined that our deferred tax asset was not likely to be realized, a write-down of that asset would be required and would be reflected in the provision for taxes in the accompanying period.

Currency Rate Fluctuations

Changes in the relative values of non-U.S. currencies to the U.S. dollar affect our results. During 2004, we conducted a significant portion of our business in foreign currencies, including the Euro, the Swedish Krona, the Swiss Franc and the Taiwan dollar. At December 31, 2004, currency changes resulted in assets, liabilities, revenues and expenses being translated into more U.S. dollars than at December 31, 2003. The U.S. dollar weakened 9% compared to the Euro and Swedish Krona, 8% compared to the Swiss Franc and 3% compared to the Taiwan dollar during the year ended December 31, 2004. The Euro, the Swedish Krona and the Swiss Franc primarily impact our networking business, while the Taiwan dollar affects our optical components business. However, because we have revenues and expenses in each of these foreign currencies, the effect on our results of operations from currency fluctuations is reduced. We do not regularly attempt to reduce our currency risks through hedging instruments, however, we may do so in the future.

Management Discussion Snapshot

The following table sets forth, for the periods indicated, certain Statement of Operations data (dollars in thousands):

| For the year ended December 31, | 2004 | | 2003 | | 2002 | |
|------------------------------------|----------------------|------|------------|------|------------|------|
| | \$ | % | \$ | % | \$ | % |
| Revenue (1) | \$271,658 | 100% | \$238,983 | 100% | \$ 252,532 | 100% |
| Networking group | 227,192 | 84 | 202,399 | 85 | 185,662 | 74 |
| Optical components group | 46,431 | 17 | 38,790 | 16 | 67,284 | 27 |
| Gross margin ⁽²⁾ | 91,878 | 34 | 74,090 | 31 | 82,966 | 33 |
| Networking group | 85,405 | 38 | 70,839 | 35 | 67,453 | 36 |
| Optical components group | 6,473 | 14 | 3,251 | 8 | 16,341 | 24 |
| Operating costs and expenses (2) | . 99,066 | 36 | 94,229 | 39 | 229,280 | 91 |
| Networking group | 80,659 | 36 | 73,046 | 36 | 126,217 | 68 |
| Optical components group | 16,313 | 35 | 14,363 | 37 | 78,996 | 117 |
| Development stage enterprise group | 2,094 | NM | 6,820 | NM | 24,067 | NM |
| Operating income (loss) (2) | (7,188) | (3) | (20, 39) | (8) | (146,314) | (58) |
| Networking group | 4,746 | 2 | (2,207) | (1) | (58,764) | (32) |
| Optical components group | (9,840) | (21) | (11,112) | (29) | (62,655) | (93) |
| Development stage enterprise group | (2,09 4) | NM | (6,820) | NM | (24,067) | NM |

NM - not meaningful

⁽¹⁾ Revenue information by segment includes intersegment revenue, primarily reflecting sales of fiber optic components to the networking group. No revenues were generated by the development stage enterprise group for the periods presented.

⁽²⁾ Statement of Operations data express percentages as a percentage of revenue. Statement of Operations data by segment express percentages as a percentage of applicable segment revenue. No revenues or corresponding gross profit were generated by the Development stage enterprise group in 2004 or 2003.

The following management discussion and analysis refers to and analyzes our results of operations among three segments as defined by our management. These three segments are our networking group, optical

components group and development stage enterprise group, which includes all start-up activities.

Year Ended December 31, 2004 ("2004") Compared To Year Ended December 31, 2003 ("2003")

Revenue

| For the year ended December 31: | 2004 | 2003 | \$ Change | % Change | % Change Constant Currency ⁽²⁾ |
|------------------------------------|-----------|-----------|-----------|----------|---|
| Networking group | \$227,192 | \$202,399 | \$24,793 | 12% | 5% |
| Optical components group | 46,431 | 38,790 | 7,641 | 20 | 18 |
| Development stage enterprise group | - | - | - | 0 | 0 |
| | 273,623 | 241,189 | 32,434 | 13 | 7 |
| Adjustments ⁽¹⁾ | (4,965) | (2,206) | 241 | (H) | (11) |
| Total | \$271,658 | \$238,983 | \$32,675 | 14 | 7 |

- (1) Adjustments represent the elimination of intersegment revenue in order to reconcile to consolidated revenues.
- (2) Percentage information in constant currencies in the table and in the text below excludes the effect of foreign currency translation on reported results. Constant currency results are calculated by translating the current year results at prior year average exchange rates.

Revenues for 2004 increased \$32.7 million, or 14%, to \$271.7 million from \$239.0 million for 2003. We realized increases in revenues from sales of all of our product lines. The weakening of the U.S. dollar during the year compared with certain European currencies, in which we do business, contributed \$16 million to the year-over-year increase in revenues. On a constant currency basis, revenues increased 7%. In absolute dollars, sales of our fiber optic components and switches and routers generated the strongest product line growth. Our console management products also reported strong growth with an increase of 24% year-over-year. Geographically, revenues increased 24% in the Americas. We attribute the increase in our revenues in the Americas to initial shipments of FTTP products for early deployments. FTTP networks use fiber optic cables, rather than copper cables, to deliver voice, video and high speed data to customer premises. These networks can transmit voice, data and video signals at speeds and capacities far exceeding the traditional broadband services currently offered by telecommunication providers. FTTP will allow these providers to offer superior services at very competitive prices. Shipments of FTTP products for 2004 totaled approximately \$24 million (\$17 million was generated in the last half of 2004). Recent announcements suggest that FTTP deployments in North America are expected to make services available to at least one million residential homes by the end of the year; however the number of actual residential homes subscribing to such services is expected to be a fraction of the total deployments. We expect sales of FTTP products to continue to grow in 2005 and beyond. However, this forward looking statement may not come to pass if the actual deployments do not meet the expectations of industry announcements, if the orders we expect to receive do not materialize, are delayed or cancelled or if we are unable to ship the products as required.

For 2004, 46% of our revenues were generated from the sale of third-party products through our system integration and distribution offices as compared to 48% of our revenues in 2003. Revenues generated from internally produced products increased \$21.3 million during 2004.

Networking Group. Our networking group provides equipment used by commercial customers, governments and telecommunications service providers, which includes switches, routers, physical layer products and console management products as well as specialized networking products for defense, aerospace and other applications, including cellular communications. External revenues generated from our networking group increased \$24.8 million, or 12%, to \$227.2 million for 2004 as compared to \$202.4 million for 2003. The increase is due to increases in sales of all of our networking products. Sales of our console management products, other networking products and switches and routers generated the largest percentage gains year-over-year. The effect of currency fluctuations contributed \$15 million to the year-over-year increase in revenues. On a constant currency basis, revenues increased 5%. External revenues generated from the sales of console management products increased \$3.9 million, or 24%, to \$20.6 million for 2004 compared to \$16.6 million for 2003. External revenues generated from the sales of our other networking products increased \$6.4 million, or 20%, to \$38.7 million for 2004 compared to \$32.3 million for 2003. External revenues generated from the sales of our switches and routers increased \$8.2 million, or 13%, to \$72.2 million for 2004 compared to \$64.0 million for 2003.

Optical Components Group. Our optical components group designs, manufactures and sells optical communications components and primarily consists of products manufactured by our wholly owned subsidiary,

LuminentOIC. These components include fiber optic transceivers, discrete lasers and LEDs, as well as components for FTTP applications. Revenues, including intersegment revenue, generated from our optical components group increased \$7.6 million, or 20%, to \$46.4 million for 2004 as compared to \$38.8 million for 2003. We attribute the increase in optical components revenue to initial shipments of FTTP components for North American deployments, which generated revenues totaling \$24 million in 2004 (\$17 million was generated in the last half of 2004). Additionally,

shipments of FTTP products were the primary catalyst for our increase in sales in the Americas. The effect of currency fluctuations contributed \$1 million to the year-over-year increase in revenues. On a constant currency basis, revenues increased 18%.

Development Stage Enterprise Group. No revenues were generated by these entities for 2004 and 2003,

Gross Profit

| For the year ended December 31: | 2004 | 2003 | \$ Change | % Change | % Change Constant Currency ⁽¹⁾ |
|------------------------------------|----------|----------|-----------|----------|---|
| Networking group | \$85,405 | \$70,839 | \$14,566 | 21% | 15% |
| Optical components group | 6,473 | 3,251 | 3,222 | 99 | 93 |
| Development stage enterprise group | | - | - | - | - |
| Total | \$91,878 | \$74,090 | \$17,788 | 24 | 18 |

(1) Percentage information in constant currencies in the table and in the text below excludes the effect of foreign currency translation on reported results. Constant currency results are calculated by translating the current year results at prior year average exchange rates.

Gross profit for 2004 was \$91.9 million, compared to gross profit of \$74.1 million for 2003. Gross profit increased \$17.8 million, or 24%, in 2004 compared to 2003. Our gross margin for 2004 improved to 34% compared to 31% for 2003, representing year-over-year improvement of \$14.6 million, or 21%. The increase in gross profit is the result of the increase in revenue and the composition of product sales, primarily the increase in internally produced products. Revenues generated from internally produced products increased \$21.3 million during 2004, which generate gross margins at rates higher than our company-wide averages. The effect of currency fluctuations also contributed \$4 million to the year-over-year increase in gross profit. On a constant currency basis, gross profit increased 18%.

Networking Group. Gross profit for our networking group was \$85.4 million for 2004 compared to \$70.8 million for 2003. Gross margins improved to 38% for 2004, compared to gross margin of 35% for 2003. We attribute the improvement in gross margin during 2004 to the composition of our product revenue, specifically the increase in sales of our internally produced products. Gross margins generated from these product sales are at rates higher than our company-wide averages. The effect of currency fluctuations also contributed \$4 million to the year-over-year increase in gross profit. On a constant currency basis, gross profit increased 15%.

Optical Components Group. Gross profit for 2004 was \$6.5 million, compared to \$3.3 million for 2003, an improvement of \$3.2 million, primarily as a result of the increase in FTTP sales. Gross margins improved to 14% for 2004, compared to gross margin of 8% for 2003. The improvement in gross margin for 2004 is attributed to the increase in product sales, including the contribution from the initial shipments of FTTP products for early deployments. Gross margins are expected to continue to improve as a result of anticipated operational efficiencies and economies of scale. We continued transitioning volume manufacturing to our Taiwanese optical components facility which resulted in significant savings in direct labor in the fourth quarter of 2004 compared to the third quarter of 2004. Further, we began to realize efficiencies in material costs due to increased volumes and purchasing power. The effect of currency fluctuations did not have a significant impact on the year-over-year increase in gross profit in absolute dollars.

Development Stage Enterprise Group. As we had no sales by these entities, no gross margins were produced by these entities for 2004 and 2003.

Operating Costs and Expenses

| For the year ended December 31: | 2004 | 2003 | \$ Change | % Change | % Change Constant Currency ⁽¹⁾ |
|------------------------------------|----------|----------|-----------|----------|---|
| Networking group | \$80,659 | \$73,046 | \$ 7,613 | 10% | 7% |
| Optical components group | 16,313 | 14,363 | 1,950 | 14 | 12 |
| Development stage enterprise group | 2,094 | 6,820 | (4,726) | (69) | (69) |
| Total | \$99,066 | \$94,229 | \$ 4,837 | 5 | 2 |

⁽¹⁾ Percentage information in constant currencies in the table and in the text below excludes the effect of foreign currency translation on reported results. Constant currency results are calculated by translating the current year results at prior year average exchange rates.

Operating costs and expenses were \$99.1 million, or 36% of revenues, for 2004, compared to \$94.2 million, or 39% of revenues, for 2003. Operating costs and expenses increased \$4.8 million, or 5%, in 2004 compared to 2003. For 2004, operating costs and expenses included deferred stock expense totaling \$168,000, while 2003 included income from recapturing accelerated deferred stock expense due to terminations that amounted to \$7.0 million. These changes in deferred stock expense (i.e., expense in 2004 compared to income reported in 2003) accounted for an increase in operating costs and expenses totaling \$7.2 million. The effect of currency fluctuations contributed \$3 million to the year-over-year increase in operating costs and expenses. On a constant currency basis, operating costs and expenses increased 2%. The increase in operating costs and expenses resulting from the changes in deferred stock expense and foreign currency exchange rates was offset by cost savings efforts, including head count reductions and lower spending in product development and engineering.

Networking Group. Operating costs and expenses for 2004 were \$80.7 million, or 36% of revenues, compared to \$73.0 million, or 36% of revenues, for 2003. Operating costs and expenses increased \$7.6 million, or 10%, in 2004 compared to 2003. For 2004, operating costs and expenses included deferred stock expense totaling \$141,000, while 2003 included income from recapturing accelerated deferred stock expense due to terminations that amounted to \$6.7 million. Changes in deferred stock expenses accounted for an increase in our operating costs and expenses of \$6.9 million. The effect of currency fluctuations contributed

\$3 million to the year-over-year increase in operating costs and expenses. On a constant currency basis, operating costs and expenses increased 7%. For 2004, we also experienced additional sales and marketing expenses associated with higher revenues, such as sales commissions. These increases were partially offset by reductions in our product development and engineering expenses as we continue to focus our efforts on strategic high-growth, high-return markets.

Optical Components Group. Operating costs and expenses for 2004 were \$16.3 million, or 35% of revenues, compared to \$14.4 million, or 37% of revenues, for 2003. Operating costs and expenses increased \$2.0 million, or 14%, in 2004 compared to 2003. We attributed the increase in our operating costs and expenses to an increase in selling, general and administrative expenses in conjunction with the improvement in our optical components business. The effect of currency fluctuations did not have a significant impact on the year-over-year increase in operating costs and expenses in absolute dollars.

Development Stage Enterprise Group. Operating costs and expenses for 2004 were \$2.1 million, compared to \$6.8 million for 2003. Operating costs and expenses decreased \$4.7 million, or 69%, in 2004 compared to 2003. We attribute the decrease in operating costs and expenses to our cost saving efforts, which mainly consisted of significant head count reductions to align these costs with current development activities.

Operating Income (Loss)

| For the year ended December 31: | 2004 | 2003 | \$ Change | % Change | % Change Constant Currency ⁽¹⁾ |
|------------------------------------|-----------|------------|-----------|----------|---|
| Networking group | \$ 4,746 | \$ (2,207) | \$ 6,953 | (315)% | (251)% |
| Optical components group | (9,840) | (11,112) | 1,272 | (H) | (H) |
| Development stage enterprise group | (2,094) | (6,820) | 4,726 | (69) | (69) |
| Total | \$(7,188) | \$(20,139) | \$12,951 | (64) | (57) |

⁽¹⁾ Percentage information in constant currencies in the table and in the text below excludes the effect of foreign currency translation on reported results. Constant currency results are calculated by translating the current year results at prior year average exchange rates.

We reported an operating loss of \$7.2 million, or 3% of revenues, for 2004 compared to \$20.1 million, or 8% of revenues, for 2003. We reduced our operating loss by \$13.0 million, or 64%, in 2004 compared to 2003. This improvement is the result of our cost reduction efforts and the realignment of our costs and expenses with current operations along with our overall increase in sales and gross profit, primarily through our networking group. The effect of currency fluctuations contributed \$1 million to the year-over-year improvement in our operating loss. On a constant currency basis, our operating loss improved 57%.

Networking Group. Our networking group reported operating income totaling \$4.7 million, or 2% of revenues, for 2004, compared to an operating loss of \$2.2 million, or 1% of revenues, for 2003, an improvement of \$7.0 million. This improvement is the result of our increased sales and gross profit, partially offset by changes in deferred stock expense and increase sales and marketing expenses. The effect of currency fluctuations contributed \$1 million to the year-over-year increase in our operating income.

Optical Components Group. Our optical components group reported an operating loss of \$9.8 million, or 21% of revenues, for 2004, compared to \$11.1 million, or 29% of revenues, for 2003. Our operating loss improved \$1.3 million, or 11%, in 2004 compared to 2003. Our reduction in operating loss was the result of improved sales and gross profit, partially offset by increases in operating costs and expenses resulting. The effect of currency fluctuations did not have a significant impact on the year-over-year improvement in our operating loss in absolute dollars.

Development Stage Enterprise Group. Our development stage enterprise group reported an operating loss of \$2.1 million for 2004, compared to \$6.8 million for 2003. Our operating loss improved \$4.7 million, or 69%, in 2004 compared to 2003. The improvement is the result of a significant reduction in spending for operating costs and expenses.

Interest Expense And Other Income (Expense), Net

Interest expense was \$3.1 million and \$3.2 million for 2004 and 2003, respectively. Other income (expense), net principally includes interest

income on cash and investments. During 2004, other income (expense), net includes a gain on the sale of an investment totaling \$2.0 million. During 2003, we retired \$5.9 million principal amount of our 1998 Notes in exchange for the issuance of 4.2 million shares of our common stock to the holders of these notes. As a result of this exchange, we recognized a loss on the extinguishment of debt totaling \$5.4 million, net of associated taxes.

Provision For Taxes

The provision for income taxes for 2004, principally foreign taxes, was \$3.0 million, compared to \$2.4 million for 2003. The increase in tax expense in 2004 versus 2003 was primarily due to increases in income in various jurisdictions where we pay income tax. During 2004, we recorded an additional valuation allowance against additional deferred income tax assets, principally domestic net operating losses and unrealized tax credits.

Year Ended December 31, 2003 ("2003") Compared To Year Ended December 31, 2002 ("2002")

Revenue

Revenues for 2003 decreased \$13.5 million, or 5%, to \$239.0 million from \$252.5 million for 2002. The decrease was due to the worldwide economic slowdown in general and specifically the downturn in telecommunications spending for optical components, partially offset by the positive impact resulting from the weakened U.S. dollar compared to our other functional currencies. Additionally, the decrease in revenues is the result of the loss of revenues from our divestiture of FOCI Fiber Optic Communications, Inc., or FOCI, and Quantum Optech, Inc., or QOI, in October 2002 that amounted to \$17.0 million in 2002.

For 2003, 48% of our revenues were generated from the sale of third-party products through our system integration and distribution offices, as compared to 39% during 2002. Our revenues by segments for 2003 and 2002 were as follows (in thousands):

| For the year ended December 31: | 2003 | 2002 | \$ Change | % Change |
|------------------------------------|----------------|-----------|------------|----------|
| Networking group | \$202,399 | \$185,662 | \$ 16,737 | 9% |
| Optical components group | 38,7 90 | 67,284 | (28,494) | (42)% |
| Development stage enterprise group | . | - | - | 0% |
| | 241,189 | 252,946 | (11,757) | (5)% |
| Adjustments (1) | (2,206) | (414) | (1,792) | 433% |
| Total | \$238,983 | \$252,532 | \$(13,549) | (5)% |

(1) Adjustments represent the elimination of intersegment revenue in order to reconcile to consolidated revenues.

Networking Group. Our networking group provides equipment used by commercial customers, governments and telecommunications service providers, which includes switches, routers, network physical infrastructure equipment and remote device management equipment as well as specialized networking products for defense, aerospace and other applications, including cellular communications. External revenues generated from our networking group increased \$16.7 million, or 9%, to \$202.4 million for 2003 as compared to \$185.7 million for 2002. The increase is due to increases in sales of switches and routers, services and other networking products. External revenues generated from sales of switches and routers increased \$6.5 million, or 11%, to \$64.0 million for 2003 as compared to \$57.6 million for 2002. The external revenues from our networking group were also positively impacted by the effect of the weakened U.S. dollar compared to our other functional currencies, primarily the Euro. External revenues generated from sales of switches and routers are heavily dependent on our international offices. External revenues generated from sales of our remote device management products decreased \$735,000, or 4%, to \$16.6 million for 2003 as compared to \$17.4 million for 2002. External revenues generated from sales of our network physical infrastructure products decreased by \$5.1 million, or 9%, to \$50.5 million for 2003 as compared to \$55.6 million for 2002. External revenues from sales of our other networking products, which include defense, aerospace and other applications, including cellular communications, increased \$11.8 million, or 57%, during 2003 to \$32.3 million from \$20.6 million for 2002. We attribute the increase in our overall external revenues to an increased number of governmental projects and improved penetration into the markets served by these products.

Optical Components Group. Our optical components group designs, manufactures and sells optical communications components and primarily consists of products manufactured by our wholly owned subsidiary, LuminentOIC. These components include fiber optic transceivers, discrete lasers and LEDs, as well as components for FTTP applications. Revenues, including intersegment revenue, generated from our optical components group decreased \$28.5 million, or 42%, to \$38.8 million for 2003 as compared to \$67.3 million for 2002. We attribute the decrease in optical components revenue to the current slowdown in telecommunications spending for optical components. External revenues generated from optical passive components decreased \$13.9 million, or 48%, to \$14.9 million for 2003 as compared to \$28.7 million for 2002. The decrease in revenues from sales of optical passive components is primarily due to the loss of revenues from our divestiture of FOCI and QOI in October 2002 that amounted to \$17.0 million in 2002, in addition to decreases in our sales of these components through our remaining offices. External revenue generated

from optical active components decreased \$12.3 million, or 24%, to \$39.0 million for 2003 as compared to \$51.3 million for 2002. We attribute the decrease in revenues from optical active components to a sector-wide oversupply, which has adversely impacted the average selling prices of these components.

Development Stage Enterprise Group. No significant revenues were generated by these entities for 2003 and 2002.

Gross Profit

Gross profit for 2003 was \$74.1 million, compared to gross profit of \$83.0 million for 2002. Gross profit decreased \$8.9 million, or 11%, in 2003 compared to 2002. For 2003 and 2002, gross profit includes income from recapturing accelerated deferred stock expense due to terminations that amounted to \$1.1 million and \$878,000, respectively. Gross profit for 2003 was also positively affected by the utilization of \$1.7 million of the product credit received from the divestiture of FOCI and QOI in 2002.

Our gross margin slightly decreased to 31% for 2003, compared to gross margin of 33% for 2002. We attribute the decrease in our gross margin to a change in the composition of our product revenues. Our percentage of third-party equipment revenues increased during 2003, which generated lower gross margins. The weakened U.S. dollar compared to the Euro resulted in an increase in our cost of goods sold, particularly in lower margin business through our European offices.

Networking Group. Gross profit for 2003 was \$70.8 million, compared to gross profit of \$67.5 million for 2002. Gross profit increased \$3.4 million, or 5%, in 2003 compared to 2002. Gross margins decreased to 35% for 2003, compared to gross margin of 36% for 2002. For 2003, our networking group's gross profit includes income from the recapture of accelerated deferred stock expense due to terminations totaling \$1.1 million, compared to deferred stock expense totaling \$297,000 for 2002. Changes in deferred stock expense amounted to \$1.4 million of the gross margin improvement. In addition to the decrease in deferred stock expense, we attribute the increase in gross profit during 2003 to the effects of improved operating efficiencies and cost reduction efforts.

Optical Components Group. Gross profit for 2003 was \$3.3 million, compared to gross profit of \$16.4 million for 2002. Gross profit decreased \$13.1 million, or 80%, in 2003 compared to 2002. Gross margins decreased to 8% for 2003, compared to gross margin of 24%

for 2002. For 2003 and 2002, the optical components group's gross profit includes income from recapturing accelerated deferred stock expense due to terminations that amounted to \$50,000 and \$1.2 million, respectively. Changes in deferred stock expense accounted for \$1.1 million of the decrease in gross profit in 2003. Gross profit decreased due to the sale of FOCI and QOI in October 2002, which contributed gross profit that amounted to \$2.0 million in 2002, along with increased competition and continued market contraction resulting in lower average selling prices.

Development Stage Enterprise Group. No significant gross margins were produced by these entities for 2003 and 2002.

Operating Costs and Expenses

Operating costs and expenses were \$94.2 million, or 39% of revenues, for 2003, compared to \$229.3 million, or 91% of revenues, for 2002. Operating costs and expenses decreased \$135.1 million, or 59%, in 2003 compared to 2002. For 2003, operating costs and expenses include income from the recapture of accelerated deferred stock expense due to terminations that amounted to \$7.0 million, while 2002 includes \$7.5 million in deferred stock expense. Changes in deferred stock expenses accounted for \$14.5 million of the decrease in our operating costs and expenses. For 2003, operating costs and expenses include an impairment of goodwill and other intangibles that amounted to \$356,000. Operating costs and expenses for 2002, includes impairment losses on goodwill and other intangibles and long-lived assets that amount to \$72.7 million and \$17.0 million, respectively. In addition to the income from the recapture of deferred stock expense and the substantial reduction in impairment losses on goodwill and other tangibles and long-lived assets, we attribute the decrease in operating costs and expenses during 2003 to our overall cost reduction efforts to align these costs with current operations. We reduced spending in product development and engineering and selling, general and administrative expenses.

Networking Group. Operating costs and expenses for 2003 were \$73.0 million, or 36% of revenues, for 2003, compared to \$126.2 million, or 68% of revenues, for 2002. Operating costs and expenses decreased \$53.2 million, or 42%, in 2003 compared to 2002. For 2003, operating costs and expenses include income from recapturing accelerated deferred stock expense due to terminations that amounted to \$6.7 million, while 2002 includes \$6.8 million in deferred stock expense. Changes in deferred stock expenses accounted for \$13.5 million of the decrease in our operating costs and expenses. For 2003, operating costs and expenses include an impairment of goodwill and other intangibles that amounted to \$356,000. Operating costs and expenses for 2002, includes impairment losses on goodwill and other intangibles and longlived assets that amount to \$20.1 million and \$17.0 million, respectively. In addition to the impact from income from the recapture of deferred stock expense and impairment losses, we attribute the decrease in operating costs and expenses during 2003 to our cost saving efforts. including head count reductions, to align these costs with current operations. We reduced spending in the areas of product development and engineering and general and administrative expense, while slightly increasing spending for selling and marketing efforts.

Optical Components Group. Operating costs and expenses for 2003 were \$14.4 million, or 37% of revenues, for 2003, compared to \$79.0 million, or 117% of revenues, for 2002. Operating costs and expenses decreased \$64.6 million, or 82%, in 2003 compared to 2002. For 2003, operating costs and expenses include income from recapturing accelerated deferred stock expense due to terminations that amounted to \$240,000, while 2002 includes \$624,000 in deferred stock expense. Changes in deferred stock expenses accounted for \$864,000 of the decrease in our operating costs and expenses. Operating costs and expenses for 2002, includes an impairment loss on goodwill and other intangibles that amounted to \$51.9 million. We attributed the remaining decrease in our operating costs and expenses to our cost saving efforts, including head count reductions, to align these costs with current operations. We reduced spending in the areas of product development and engineering, selling, general and administrative expenses.

Development Stage Enterprise Group. Operating costs and expenses for 2003 were \$6.8 million for 2003, compared to \$24.1 million for 2002. Operating costs and expenses decreased \$17.2 million, or 72%, in 2003 compared to 2002. We attribute the decrease in operating costs and expenses to our cost saving efforts, including head count reductions, to align these costs with current development activities.

Operating Loss

We reported an operating loss of \$20.1 million, or 8% of revenues, for 2003 compared to \$146.3 million, or 58% of revenues, for 2002. We reduced our operating loss by \$126.2 million, or 86%, in 2003 compared to 2002. For 2003, our operating loss includes an impairment of goodwill and other intangibles that amounted to \$356,000. Our operating loss for 2002 includes impairment losses on goodwill and other intangibles and long-lived assets that amount to \$72.7 million and \$17.0 million, respectively. This improvement is the result of our cost reduction efforts and the realignment of our costs and expenses with current operations along with our improvement in gross profit. Our reduction in net loss was also positively impacted by income resulting from our reversal of deferred stock expense in 2003 compared to reporting such expenses in 2002 and the substantial reduction in impairment losses on goodwill and other tangibles and long-lived assets in 2003.

Networking Group. Our networking group reported an operating loss of \$2.2 million, or 1% of revenues, for 2003, compared to an operating loss of \$58.8 million, or 32% of revenues, for 2002. This improvement is the result of our reduced spending for operating costs and expenses, along with the substantial reduction in impairment losses in 2003. Our results in 2003 were also positively impacted by income resulting from our reversal of deferred stock expenses in 2003 compared to reporting such expenses in 2002.

Optical Components Group. Our optical components group reported an operating loss of \$11.1 million, or 29% of revenues, for 2003, compared to \$62.7 million, or 93% of revenues, for 2002. Our operating loss improved \$51.5 million, or 82%, in 2003 compared to 2002. Our reduction in operating loss was the result of the substantial reduction in impairment loss on goodwill and other intangibles in 2003 along with

the favorable impact from our reversal of deferred stock expense in 2003 compared to reporting such expenses in 2002.

Development Stage Enterprise Group. Our development stage enterprise group reported an operating loss of \$6.8 million for 2003, compared to \$24.1 million for 2002. Our operating loss improved \$17.2 million, or 72%, in 2003 compared to 2002. The improvement is the result of a significant reduction in spending for operating costs and expenses.

Amortization of Intangibles

During the fourth quarter of 2003, we conducted our annual review of our goodwill and intangible assets as required by SFAS 142. The review resulted in no further reduction in the carrying amount of goodwill. During 2003, we impaired \$356,000 in goodwill from a foreign office that ceased operations.

We recorded a \$296.4 million cumulative effect of an accounting change in 2002, as the result of our adoption of SFAS No. 142 effective January 1, 2002. As a consequence of our adoption of SFAS No. 142, we no longer amortize goodwill and intangibles with indefinite lives, but instead measure goodwill and other intangibles for impairment at least annually, or when events indicate that impairment exists. We continue to amortize intangible assets that we determine to have definite lives over their useful lives. As required by SFAS No. 142, we performed the transitional impairment test on goodwill and other intangibles, which consisted of patents and assembled work forces. Of the \$296.4 million cumulative effect of an accounting change, \$84.6 million was associated with our networking group and \$211.8 million was associated with our optical components group.

Beginning October 1, 2002, we also performed the annual impairment review required by SFAS No. 142. As a result of the annual review, we further reduced the carrying amount of goodwill and other intangibles by recording an impairment charge of \$72.7 million in the third quarter of 2002. Of the \$72.7 million impairment, \$20.1 million was associated with our networking group, \$51.9 million was associated with our optical components group and \$641,000 was associated with our development stage enterprise group.

Interest Expense and Other Income (Expense), Net

In June 2003, we completed the sale of \$23.0 million principal amount of five-year 5% convertible notes due in 2008 (the "2003 Notes"), to an institutional investor, in a private placement. The 2003 Notes bear interest at 5% per annum and are convertible into our common stock at a conversion price of \$2.32 per share. We are using the net proceeds from the sale of the 2003 Notes for general corporate purposes and working capital. Interest expense relating to these notes was \$672,000 for 2003.

In June 1998, we issued \$100.0 million principal amount of our 1998 Notes. During 2003, we retired \$5.9 million principal amount of 1998 Notes in exchange for the issuance of 4.2 million shares of our common stock to the holders of these notes, resulting in a remaining

outstanding balance of \$26.0 million at maturity. On June 15, 2003, the balance of our outstanding 1998 Notes matured and we repaid and retired them. For 2003, we recognized a loss on the extinguishment of debt totaling \$5.4 million, net of associated taxes. This loss was recognized in accordance with Emerging Issues Task Force Issue 02-15 released in September 2002. During the year ended December 31, 2002, we acquired \$31.6 million in principal amount of these notes in exchange for our issuance of 12.3 million shares of our common stock to the holders of these notes. During 2002, we also purchased \$21.4 million in principal amount of these notes in exchange for \$19.7 million in cash. During 2002, we recognized a gain of \$393,000 in connection with the extinguishment of debt. We incurred \$773,000 and \$3.2 million in interest expense relating to the 1998 Notes for 2003 and 2002, respectively.

During 2003, other income (expense), net totaling \$3.3 million, represented our loss on the extinguishment of debt, partially offset by interest income on cash and investments. Interest expense was \$3.2 million and \$6.0 million for 2003 and 2002, respectively. We account for certain unconsolidated subsidiaries using the cost and equity methods. During 2002, we impaired \$11.7 million on our investments in these subsidiaries along with \$4.3 million from our share of losses from our equity method investments. For 2002, we recognized \$3.2 million in interest expense associated with the termination of our interest rate swap.

Provision For Taxes

We record valuation allowances against our deferred tax assets, when necessary, in accordance with SFAS No. 109, "Accounting for Income Taxes." Realization of deferred tax assets (such as net operating loss carryforwards and income tax credits) is dependent on future taxable earnings and is therefore uncertain. At least quarterly, we assess the likelihood that our deferred tax asset balance will be recovered from future taxable income. Our tax expense fluctuates primarily due to the tax jurisdictions where we currently have operating facilities and the varying tax rates in those jurisdictions.

The provision for income taxes for 2003, principally foreign taxes, was \$2.4 million, compared to \$13.4 million for 2002. During 2002, we recorded an additional valuation allowance, or additional tax expense, totaling \$21.2 million relating to the expected realization of our deferred income tax assets based on likely future recovery. For 2003 and 2002, there was no benefit provided for net operating losses.

Recently Issued Accounting Standards

In November 2004, the Financial Accounting Standards Board ("FASB") issued Statement of Financial Accounting Standards ("SFAS") No. 151, "Inventory Costs, an amendment of ARB No. 43, Chapter 4." The amendments made by SFAS No. 151 clarify that abnormal amounts of idle facility expense, freight, handling costs and wasted materials (spoilage) should be recognized as current-period charges and require the allocation of fixed production overheads to inventory based on the normal capacity of the production facilities. The pronouncement is effective for inventory costs incurred during fiscal years beginning after

June 15, 2005. Earlier application is permitted for inventory costs incurred during fiscal years after November 23, 2004. The adoption of this pronouncement is not expected to have a material effect on the financial condition, the results of operations or liquidity.

On December 16, 2004, the FASB issued SFAS No. 123 (revised 2004), "Share-Based Payment," which is a revision of SFAS No. 123, "Accounting for Stock-Based Compensation." SFAS No. 123(R) supersedes APB Opinion No. 25, "Accounting for Stock Issued to Employees," and amends SFAS No. 95, "Statement of Cash Flows." Generally, the approach in SFAS No. 123(R) is similar to the approach described in SFAS No. 123. However, SFAS No. 123(R) requires all share-based payments to employees, including grants of employee stock options, to be recognized in the income statement based on their fair values. Pro forma disclosure is no longer an alternative.

SFAS No. 123(R) must be adopted no later than July 1, 2005. Early adoption will be permitted in periods in which financial statements have not yet been issued. We expect to adopt SFAS No. 123(R) on July 1, 2005, the beginning of our third quarter of 2005. We are currently evaluating the two methods of adoption allowed by SFAS No. 123(R): the modified-prospective transition method and the modified-retrospective transition method. The impact of adopting this pronouncement cannot be predicted at this time because it will depend on many factors, including the levels of share-based payments granted in the future. However, had we adopted this pronouncement in prior periods, the impact of this pronouncement would approximate the impact of SFAS No. 123 described in the disclosure of the pro forma results in Note 2, "Summary of Significant Accounting Policies – Stock-Based Compensation" in our Notes to Financial Statements included elsewhere in this Form 10-K.

Liquidity and Capital Resources

We had cash and cash equivalents of \$77.2 million as of December 31, 2004, a decrease of \$10.4 million from the cash and cash equivalents of \$87.6 million as of December 31, 2003. The decrease in cash and cash equivalent is primarily the result of cash used in our operations, timing of cash collections from customers, cash used to procure necessary inventories, cash used to satisfy vendor obligations and net payments on short-term and long-term obligations. The following table illustrates our cash position, which we define as cash, cash equivalents, time deposits and short-term and long-term marketable securities, as it relates to our debt position, which we define as all short-term and long-term obligations including our 2003 Notes (in thousands):

| At December 31: | 2004 | 2003 (1) |
|--|----------|----------|
| Cash | | |
| Cash and cash equivalents | \$77,226 | \$87,602 |
| Short-term marketable securities | 3,395 | 5,221 |
| Time deposits | 1,559 | 1,411 |
| Long-term marketable securities | 1,839 | 1,705 |
| | 84,019 | 95,939 |
| Debt | 4 | |
| Current portion of long-term debt | 92 | 204 |
| 5% convertible notes due 2008 | 23,000 | 23,000 |
| Short-term obligations | 25,194 | 20,622 |
| Long-term debt | 112 | 200 |
| | 48,398 | 44,026 |
| Excess cash versus debt | \$35,621 | \$51,913 |
| Ratio of cash versus debt ⁽²⁾ | 1.7:1 | 2.2:1 |

- (1) Reclassified to conform with 2004 presentation.
- (2) Determined by dividing total "cash" by total "debt," in each case as reflected in the table.

Working Capital

| At December 31: | 2004 | 2003 (1) |
|---------------------|-----------|-----------|
| Current assets | \$216,533 | \$207,901 |
| Current liabilities | 102,538 | 99,850 |
| Working capital | \$113,995 | \$108,50 |
| Current ratio | 2.1:1 | 2.1:1 |

(1) Reclassified to conform with 2004 presentation.

Current assets increased \$8.6 million due to increases in all current asset categories with accounts receivables and inventory representing the largest increases, partially offset by decreases in cash and cash equivalents and short-term marketable securities. The increases were also affected by foreign currency. Fluctuations in current assets are typically due to the timing of: shipments of our products to customers, receipts of inventories from our vendors, cash used for capital expenditures and the affects of foreign currency.

Current liabilities increased \$2.7 million primarily due to increases in short-term obligations and accrued liabilities. These increases were partially offset by decreases in accounts payable. These increases were also affected by foreign currency. Fluctuations in current liabilities are typically due to the timing of payments to our vendors for raw materials, timing of payments for accrued liabilities, such as payroll related expenses and interest on our short-term and long-term obligations, changes in deferred income, income tax liabilities and the affects of foreign currency.

Cash Flow

| For the year ended December 31: | 2004 | 2003 |
|--|------------|------------|
| Net cash provided by (used in): | 10 July 10 | |
| Operating activities | \$(21,559) | \$(16,987) |
| Investing activities | (448) | 3,697 |
| Financing activities | 6,322 | (1,246) |
| Effect of exchange rate changes on cash and cash equivalents | 5,309 | 2,693 |
| Net change in cash and cash equivalents | \$(10,376) | \$(11,843) |

Cash Flows Related to Operating Activities. Cash used in operating activities was \$21.6 million for the year ended December 31, 2004, compared to cash used in operating activities of \$17.0 million for the year ended December 31, 2003. Cash used in operating activities is a result of our net loss of \$10.7 million, adjusted for non-cash items such as depreciation and amortization, additional allowances for doubtful accounts, deferred stock expense, deferred income taxes and losses on the disposition of fixed assets. Decreased accrued liabilities and deferred revenue positively affected cash used in operating activities. Cash used in operating activities was negatively affected by increases in time deposits, accounts receivable, inventories and other assets and decreases in accounts payable and other current liabilities. The increase in accounts receivables is due to a general increase in business worldwide. The increase in inventories results from an increase in FTTP products for future shipments, along with increases throughout our networking group in response to an increase in business worldwide. Decreases in accounts payable are the result of the timing of payments to our vendors. Cash used in operating activities for the prior period was the result of our net loss adjusted for non-cash items and changes in assets working capital.

Cash Flows Related to Investing Activities. Cash used in investing activities was \$448,000 for the year ended December 31, 2004, compared to cash provided by investing activities totaling \$3.7 million for the year ended December 31, 2003. Cash used in investing activities for the year ended December 31, 2004 was primarily the result of capital expenditures, partially offset by maturities of investments and proceeds from the sale of property and equipment. As of December 31, 2004, we had no plans for major capital expenditures. Cash flows provided by investing activities for the prior period resulted from the maturities of short-term and long-term marketable securities, partially offset by the cash used for capital expenditures and the purchase of a minority interest.

Cash Flows Related to Financing Activities. Cash flows provided by financing activities were \$6.3 million for the year ended December 31, 2004, as compared to cash flows used in financing activities of \$1.2 million for the year ended December 31, 2003. Cash provided by financing activities was primarily the result of our net borrowings of \$4.4 million on our short-term and long-term obligations, net proceeds from

the exercise of employee stock options and increases in other long-term liabilities. Cash flows used in financing activities for the prior period represent the cash paid on borrowings, our final payment on our 5% convertible subordinated notes which came due in June 2003, proceeds from the issuance of 5% convertible notes due in June 2008 and the repurchase of our common stock.

In June 1998, we issued \$100.0 million principal amount of our 1998 Notes in a private placement raising net proceeds of \$96.4 million. During 2003, prior to their maturity on June 15, 2003, we acquired

- \$5.9 million in principal amount of these notes in exchange for our issuance of 4.2 million shares of our common stock to the holders of the 1998 Notes; and
- \$500,000 in principal amount of these notes in exchange for \$502,000 in cash.

During the year ended December 31, 2002, we acquired \$31.6 million in principal amount of these notes in exchange for our issuance of 12.3 million shares of our common stock to the holders of these notes. During 2002, we also purchased \$21.4 million in principal amount of these notes in exchange for \$19.7 million in cash. At maturity on June 15, 2003, we repaid in full the \$26.0 million outstanding balance of our outstanding 1998 Notes using cash on-hand.

In June 2003, we completed the sale of \$23.0 million principal amount of our 2003 Notes to an institutional investor in a private placement under the Securities Act of 1933. These notes have an annual interest rate of 5% and are convertible into our common stock at a conversion price of \$2.32 per share. We are using the net proceeds from the sale of these notes for general corporate purposes and working capital.

During October 2003, we issued and sold 1,667,000 shares of our common stock to several institutional investors that are managed client accounts of a large investment management firm, raising net proceeds of approximately \$5.0 million. These shares were taken from our shelf registration statement that was declared effective by the SEC in June 2003, which registered \$20.0 million of our common stock that we may issue and sell from time to time.

Off-Balance Sheet Arrangements

We do not have transactions, arrangements and other relationships with unconsolidated entities that are reasonably likely to affect our liquidity or capital resources. We have no special purpose or limited purpose entities that provided off-balance sheet financing, liquidity or market or credit risk support, engage in leasing, hedging, research and development services, or other relationships that expose us to liability that is not reflected on the face of the financials.

Contractual Cash Obligations

The following table illustrates our total contractual cash obligations as of December 31, 2004 (in thousands):

| Cash Obligations | Total | Less than I Year | I - 3 Years | 4-5 Years | After 5 Years |
|------------------------------------|----------|------------------|-------------|-----------|---------------|
| Short-term obligations | \$25,194 | \$25,194 | \$ - | \$ - | \$ - |
| Long-term debt | 204 | 92 | 112 | - | ~ |
| 5% convertible notes due June 2008 | 23,000 | - | - | 23,000 | - |
| Unconditional purchase obligations | 7,619 | 7,064 | - | - | 555 |
| Operating leases | 28,158 | 5,979 | 8,035 | 5,677 | 8,467 |
| Total contractual cash obligations | \$84,175 | \$38,329 | \$8,147 | \$28,677 | \$9,022 |

Our total contractual cash obligations as of December 31, 2004, were \$84.2 million, of which, \$38.3 million are due by December 31, 2005. These total contractual cash obligations primarily consist of short-term and long-term obligations, including our 5% convertible notes due June 2008, operating leases for our equipment and facilities and unconditional purchase obligations for necessary raw materials. Historically, these obligations have been satisfied through cash generated from our operations or other avenues and we expect that this will continue to be the case.

We believe that our cash on hand and cash flows from operations will be sufficient to satisfy our current operations, capital expenditures and product development and engineering requirements for at least the next 12 months. However, we may choose to obtain additional debt or equity financing if we believe it appropriate. We are limited in the

amount of debt financing we may obtain and the price per share of common stock at which we may conduct equity financings without triggering an acceleration of, or obtaining a waiver from holders of, our 5% convertible notes due June 2008. For a discussion of these limitations and other restrictions of our 5% convertible notes due June 2008, see the discussion under "Business – Certain Risk Factors That Could Affect Future Results – Our 2003 Notes Provide For Various Events Of Default That Would Entitle The Holders To Require Us To Immediately Repay The Outstanding Principal Amount, Plus Accrued And Unpaid Interest, In Cash." Our future capital requirements will depend on many factors, including our rate of revenue growth, the timing and extent of spending to support development of new products and expansion of sales and marketing, the timing of new product introductions and enhancements to existing products and market acceptance of our products.

Quantitative and Qualitative Disclosures About Market Risks

Market Risks

Market risk represents the risk of loss that may impact our Consolidated Financial Statements through adverse changes in financial market prices and rates and inflation. Our market risk exposure results primarily from fluctuations in foreign exchange rates. We manage our exposure to these market risks through our regular operating and financing activities and have not historically hedged these risks through the use of derivative financial instruments. The term hedge is used to mean a strategy designed to manage risks of volatility in prices or interest and foreign exchange rate movements on certain assets, liabilities or anticipated transactions and creates a relationship in which gains or losses on derivative instruments are expected to counter-balance the losses or gains on the assets, liabilities or anticipated transactions exposed to such market risks.

Interest Rates. We are exposed to interest rate fluctuations on our investments, short-term borrowings and long-term obligations. Our cash and short-term investments are subject to limited interest rate risk, and are primarily maintained in money market funds and bank deposits. Our variable-rate short-term borrowings are also subject to limited interest rate risk due to their short-term maturities. Our long-term obligations were entered into with fixed and variable interest rates. In connection with our \$50.0 million variable-rate term loan due in 2003, we entered into a specific hedge, an interest rate swap, to modify the interest characteristics of this instrument. The interest rate swap was used to reduce our cost of financing and the fluctuations in the aggregate interest expense. The notional amount, interest payment and maturity dates of the swap match the principal, interest payment and maturity dates of the related debt. Accordingly, any market risk or opportunity associated with this swap is offset by the opposite market impact on the related debt. In February 2002, we paid off our \$50.0 million term loan and terminated our interest rate swap for \$3.2 million. To date, we have not entered into any other derivative instruments, however, as we continue to monitor our risk profile, we may enter into additional hedging instruments in the future.

Foreign Exchange Rates. We operate on an international basis with a portion of our revenues and expenses being incurred in currencies other than the U.S. dollar Fluctuation in the value of these foreign currencies in which we conduct our business relative to the U.S. dollar affect our results and will cause U.S. dollar translation of such currencies to vary from one period to another. We cannot predict the effect of exchange rate fluctuations upon future operating results. However, because we have revenues and expenses in each of these foreign currencies, the effect on our results of operations from currency fluctuations is reduced. We do not regularly attempt to reduce our currency risks through hedging instruments, however, we may do so in the future.

During 2004, we conducted a significant portion of our business in the Euro, the Swedish Krona, the Swiss Franc and the Taiwan dollar. At December 31, 2004, currency changes resulted in assets, liabilities, revenues and expenses being translated into more U.S. dollars than at December 31, 2003. The U.S. dollar weakened 9% compared to each of the Euro and Swedish Krona, 8% compared to the Swiss Franc and 3% compared to the Taiwan dollar during the year ended December 31, 2004. The Euro, the Swedish Krona and the Swiss Franc primarily impact our networking business, while the Taiwan dollar affects our optical components business. The effect of currency fluctuations on our results is described in "Management's Discussion and Analysis of Financial Condition and Results of Operations" included herein.

Inflation. We believe that the relatively moderate rate of inflation in the United States over the past few years has not had a significant impact on our sales or operating results or on the prices of raw materials. However, in view of our recent expansion of operations in Taiwan, Israel and other countries, which have experienced greater inflation than the United States, there can be no assurance that inflation will not have a material adverse effect on our operating results in the future.

MRV Communications, Inc. Statements of Operations

(In thousands, except per share data)

| For the year ended December 31: | 2004 | 2003 | 2002 |
|---|-------------|-------------|-------------|
| Revenue | \$271,658 | \$238,983 | \$ 252,532 |
| Cost of goods sold | 179,780 | 164,893 | 169,566 |
| Gross profit | 91,878 | 74,090 | 82,966 |
| Operating costs and expenses: | | | |
| Product development and engineering | 24,949 | 30,972 | 49,358 |
| Selling, general and administrative | 74,117 | 62,901 | 90,187 |
| Impairment of goodwill and other intangibles | | 356 | 72,697 |
| Impairment of long-lived assets | | - | 17,038 |
| Total operating costs and expenses | 99,066 | 94,229 | 229,280 |
| Operating loss | (7,188) | (20,139) | (146,314) |
| Interest expense | (3,141) | (3,170) | (6,010) |
| Other income (expense), net | 2,685 | (3,268) | (17,685) |
| Loss before taxes, extraordinary gain and cumulative effect of an accounting change | (7,644) | (26,577) | (+70,009) |
| Provision for taxes | 3,036 | 2,361 | 13,395 |
| Loss before extraordinary gain and cumulative effect of an accounting change | (10,680) | (28,938) | (183,404) |
| Extraordinary gain, net of tax | ÷ | 1,950 | - |
| Cumulative effect of an accounting change | | - | (296,355) |
| Net loss | \$ (10,680) | \$ (26,988) | \$(479,759) |
| Earnings per share: | | | |
| Basic and diluted loss per share: | | | |
| Loss before extraordinary gain and cumulative effect of an accounting change | \$ (0.10) | \$ (0.28) | \$ (2.01) |
| Extraordinary gain | \$ | \$ 0.02 | \$ - |
| Cumulative effect of an accounting change | \$ - | \$ - | \$ (3.24) |
| Net loss | \$ (0.10) | \$ (0.26) | \$ (5.25) |
| Weighted average number of shares: | | | |
| Basic and diluted | 104,793 | 102,022 | 91,421 |

The accompanying notes are an integral part of these financial statements.

MRV Communications, Inc. Balance Sheets

(In thousands, except par values)

| At December 31: | 2004 | 2003 |
|--------------------------------------|-----------|-----------|
| Assets | | |
| Current assets: | | • |
| Cash and cash equivalents | \$ 77,226 | \$ 87,602 |
| Short-term marketable securities | 3,395 | 5,221 |
| Time deposits | 1,559 | 1,411 |
| Accounts receivable, net | 80,755 | 72,489 |
| Inventories | 42,264 | 35,799 |
| Deferred income taxes | 2,395 | · - |
| Other current assets | 8,939 | 5,379 |
| Total current assets | 216,533 | 207,901 |
| Property and equipment, net | 19,089 | 25,416 |
| Goodwill | 29,965 | 29,965 |
| Long-term marketable securities | 1,839 | . 1,705 |
| Deferred income taxes | - | 2,594 |
| Investments | 3,063 | 3,063 |
| Other assets | 1,589 | 2,040 |
| | \$272,078 | \$272,684 |
| Liabilities and stockholders' equity | | |
| Current liabilities: | <u> </u> | 1 |
| Current maturities of long-term debt | \$ 92 | \$ 204 |
| Short-term obligations | 25,194 | 20,622 |
| Accounts payable | 43,209 | 46,811 |
| Accrued liabilities | 26,915 | 25,523 |
| Deferred revenue | 4,556 | 3,754 |
| Other current liabilities | 2,572 | 2,936 |
| Total current liabilities | 102,538 | 99,850 |
| Long-term debt | 112 | 200 |
| Convertible notes | 23,000 | 23,000 |
| Other long-term liabilities | 5,551 | 4,2 5 |
| Minority interest | 5,318 | 5,291 |
| Commitments and contingencies | | |

MRV Communications, Inc. Balance Sheets

(In thousands, except par values)

| At December 31: | 2004 | 2003 |
|---|-------------|-------------|
| Stockholders' equity: | | |
| Preferred stock, \$0.01 par value: | | |
| Authorized – 1,000 shares; no shares issued or outstanding | | - |
| Common stock, \$0.0017 par value: | | |
| Authorized – 160,000 shares | | |
| Issued - 105,426 shares in 2004 and 106,794 shares in 2003 | | |
| Outstanding - 104,073 shares in 2004 and 105,441 shares in 2003 | 176 | 179 |
| Additional paid-in capital | 1,155,474 | 1,154,869 |
| Accumulated deficit | (1,015,110) | (1,004,430) |
| Deferred stock expense, net | | (200) |
| Treasury stock - 1,353 shares in 2004 and 2003 | (1,352) | (1,352) |
| Accumulated other comprehensive loss | (3,629) | (8,938) |
| Total stockholders' equity | 135,559 | 140,128 |
| | \$ 272,078 | \$ 272,684 |

The accompanying notes are an integral part of these balance sheets.

MRV Communications, Inc. Statements of Stockholders' Equity and Comprehensive Income (Loss)

(In thousands)

| | Commo | n Stock | | , | | | | |
|---|---------|---------|----------------------------------|---------------------------|------------------------|-------------------|--------------------------------|------------|
| | Shares | Amount | Additional Paid-In Capital | Deferred Stock Expense | Accumulated Deficit | Treasury Stock | Comprehensive Income (Loss) | Total |
| Balance, December 31, 2001 | 82,728 | \$141 | \$1,118,942 | \$(26,344) | \$ (497,683) | \$ (133) | \$(10,247) | \$ 584,676 |
| Exercise of stock options and warrants | 50 | - | 131 | - | - | - | - | 131 |
| Issuance of common stock in connection with acquisitions | 4,996 | 8 | 7,044 | - | - | - | - | 7,052 |
| Issuance of common stock in exchange for convertible | 12.310 | 21 | 38,2 □ I | | | | | 38,232 |
| subordinated notes Purchase of treasury stock | (1,167) | (2) | 30,211 | - | - | (1,074) | - | (1,076) |
| Forfeited stock options | (1,107) | (2) | (14,693) | 2.990 | - | (1,077) | - | (1,078) |
| Amortization of deferred stock expense | - | - | (11,075) | 18,307 | _ | - - | - | 18,307 |
| Comprehensive income (loss): | | | | , 3,30, | | | - | |
| Net loss | - | _ | _ | - | (479,759) | _ | _ | (479,759) |
| Realized loss on interest rate swap | - | - | | - | - | - | 3,198 | 3,198 |
| Translation adjustment | - | - | - | - | - | - | (4,582) | (4,582) |
| Comprehensive loss | | | | | | | | (481,143) |
| Balance, December 31, 2002 | 98,917 | 168 | 1,149,635 | (5,047) | (977,442) | (1,207) | (11,681) | 154,476 |
| Exercise of stock options and warrants | 758 | 1 | 1,752 | - | - | - | - | 1,753 |
| Issuance of common stock in connection with private placement | 1,667 | 3 | 4,982 | - | - | - | - | 4,985 |
| Issuance of common stock in exchange for convertible | | _ | | | | | | |
| subordinated notes | 4,237 | 7 | 11,445 | - | - | | - | 11,452 |
| Purchase of treasury stock | (138) | - | - (12.0.45) | - | - | (145) | - | (145) |
| Forfeited stock options | • | - | (12,945) | 1,369 | - | - | - | (11,576) |
| Amortization of deferred stock expense | _ | - | _ | 3,478 | _ | _ | _ | 3,478 |
| Comprehensive income (loss): | | | | 31170 | | | | ,,,,, |
| Net loss | - | - | _ | - | (26,988) | - | - | (26,988) |
| Translation adjustment | - | _ | - | - | - | - | 2,693 | 2,693 |
| Comprehensive loss | | | | | | | | (24,295) |
| Balance, December 31, 2003 | 105,441 | 179 | 1,154,869 | (200) | (1,004,430) | (1,352) | (8,938) | 140,128 |

MRV Communications, Inc. Statements of Stockholders' Equity and Comprehensive Income (Loss)

(In thousands)

| | Commo | on Stock | | | | | | To the state of the |
|--|---------|----------|----------------------------------|---------------------------|------------------------|-------------------|--------------------------------|---------------------|
| | Shares | Amount | Additional Paid-In Capital | Deferred Stock Expense | Accumulated Deficit | Treasury Stock | Comprehensive Income (Loss) | Total |
| Balance, December 31, 2003 | 105,411 | 179 | 1,154,869 | (200) | (1,004,430) | (1,352) | (8,938) | 140,128 |
| Exercise of stock options and warrants | 381 | - | 614 | - | - | ~ | - | 614 |
| Retirement of common stock | (1,749) | (3) | 3 | - | - | ~ | - | A VALUE A |
| Forfeited stock options | - | - | (12) | - | - | ~ | - | (12) |
| Amortization of deferred stock expense | - | - | - | 200 | - | - | - | 200 |
| Comprehensive income (loss): | | | | | | | | |
| Net loss | - | - | - | - | (10,680) | - | - | (10,680) |
| Translation adjustment | - | - | - | - | - | - | 5,309 | 5,309 |
| Comprehensive loss | | | | | | | | (5.371) |
| Balance, December 31, 2004 | 104,073 | \$176 | \$1,155,474 | \$ - | \$(1,015,110) | \$(1,352) | \$(3,629) | \$135,559 |

The accompanying notes are an integral part of these financial statements.

MRV Communications, Inc. Statements of Cash Flows

(In thousands)

| For the year ended December 31: | 2004 | 2003 | 2002 |
|--|------------|------------|-------------|
| Cash flows from operating activities: | | Çı | |
| Net loss | \$(10,680) | \$(26,988) | \$(479,759) |
| Adjustments to reconcile net loss to net cash used in operating activities: | | | |
| Depreciation and amortization | 8,266 | 11,411 | 16,169 |
| Amortization of deferred stock expense, net of forfeited options | 188 | (8,098) | 6,604 |
| Provision for doubtful accounts | 1.367 | 1,829 | 2,188 |
| Deferred income taxes | 199 | 43 | 20,592 |
| Loss on extinguishment of debt | | 5,438 | 1,363 |
| Impairment of goodwill and other intangibles | | 356 | 72,697 |
| Cumulative effect of an accounting change | | - | 296,355 |
| Loss on termination of interest rate swap | | • • | 3,198 |
| Extraordinary gain | | (1,950) | - |
| (Gain) loss on disposition of property and equipment | 235 | 306 | 243 |
| Impairment of long-lived assets | | - | 17,038 |
| Impairment of cost and equity method investments | | - | 11,741 |
| Loss on equity method subsidiaries | | - | 4.283 |
| Minority interests' share of income | 27 | (80) | 230 |
| Changes in operating assets and liabilities, net of effects from acquisitions: | | | |
| Time deposits | (148) | 1,378 | 1,843 |
| Accounts receivable | (9,633) | (4,003) | 5,361 |
| Inventories | (6,465) | (3,104) | 24,613 |
| Other assets | (3,143) | 6,540 | 11,404 |
| Accounts payable | (3,602) | 5,503 | (6,996) |
| Accrued liabilities | 1,486 | (4, 36) | (7,280) |
| Deferred revenue | 802 | (196) | (2 5) |
| Other current liabilities | (458) | (1,236) | 375 |
| Net cash provided by (used in) operating activities | (21,559) | (16,987) | 2,047 |

MRV Communications, Inc. Statements of Cash Flows

(In thousands)

| For the year ended December 31: | 2004 | 2003 | 2002 |
|--|--------------|-----------|-----------|
| Cash flows from investing activities: | | | - |
| Purchases of property and equipment | (2,737) | (2,380) | (13,947) |
| Proceeds from sale of property and equipment | 597 | 449 | 323 |
| Purchases of investments | | • | (4,150) |
| Proceeds from sale of FOCI and QOI | - | - | 5,735 |
| Proceeds from maturity of investments | 1,692 | 6,259 | 33,426 |
| Investment in subsidiaries | · - | (631) | - |
| Net cash provided by (used in) investing activities | (448) | 3,697 | 21,387 |
| Net proceeds from issuance of convertible notes | · | 22,950 | - |
| Net proceeds from issuance of common stock | 614 | 6,738 | 131 |
| Payment for termination of interest rate swap | - | - | (3,198) |
| Borrowings on short-term obligations | 59,042 | 50,198 | 63,303 |
| Payments on short-term obligations | (54,582) | (54,431) | (70,956) |
| Payments on long-term obligations | (88) | (583) | (52,495) |
| Repurchase of convertible subordinated notes | - | (26,522) | (19,721) |
| Purchase of treasury stock | - | (145) | (1,076) |
| Other long-term liabilities | 1,336 | 549 | (71) |
| Net cash provided by (used in) financing activities | 6,322 | (1,246) | (84,083) |
| Effect of exchange rate changes on cash and cash equivalents | 5,309 | 2,693 | (4,582) |
| Net decrease in cash and cash equivalents | (10,376) | (11,843) | (65,231) |
| Cash and cash equivalents, beginning of year | 87,602 | 99,445 | 164,676 |
| Cash and cash equivalents, end of year | \$ 77,226 | \$ 87,602 | \$ 99,445 |

The accompanying notes are an integral part of these financial statements.

MRV Communications, Inc. Notes To Financial Statements December 31, 2004

1. Description of Business

MRV Communications, Inc., (a Delaware corporation, "MRV" or the "Company") designs, manufactures, sells, distributes, integrates and supports communication equipment and services, and optical components. MRV conducts its business along three principal segments: the networking group, the optical components group and development stage enterprise group. MRV's networking group provides equipment used by commercial customers, governments and telecommunications service providers, and include switches, routers, physical layer products and console management products as well as specialized networking products for aerospace, defense and other applications including voice and cellular communication. MRV's optical components group designs, manufactures and sells optical communications components, primarily through its wholly owned subsidiary LuminentOIC. Inc. These components include fiber optic transceivers for metropolitan, access and Fiber-to-the-Premises, or FTTP, applications. MRV's development stage enterprise group seeks to develop new optical components, subsystems and networks and other products for the infrastructure of the Internet.

2. Summary of Significant Accounting Policies

Principles of Consolidation

The accompanying financial statements include the accounts of MRV and its wholly owned and majority owned subsidiaries. All significant intercompany transactions and accounts have been eliminated. MRV consolidates the financial results of related development stage enterprises when it has effective control, voting control or has provided the entity's working capital. When others invest in these enterprises reducing its voting control below 50%, MRV discontinues consolidation and uses the cost or equity method of accounting for these investments unless otherwise required.

Foreign Currency

Transactions originally denominated in other currencies are converted into U.S. dollars in accordance with Statement of Financial Accounting Standards ("SFAS") No. 52, "Foreign Currency Translation." Increases or decreases in the resulting assets or liabilities, which are denominated in a foreign currency, are recorded as foreign currency gains and losses and are included in other income (expense) in determining net income (loss).

For foreign operations with the local currency as the functional currency, assets and liabilities are translated from the local currencies into U.S. dollars at the exchange rate prevailing at the balance sheet date. Revenues, expenses and cash flows are translated at weighted average exchange rates for the period to approximate translation at the exchange rate prevailing at the dates those elements are recognized in the financial statements. Translation adjustments resulting from the

process of translating the local currency financial statements into U.S. dollars are included in determining comprehensive income (loss).

Revenue Recognition

MRV generally recognizes product revenue, net of sales discounts, returns and allowances, when persuasive evidence of an arrangement exits, delivery has occurred and all significant contractual obligations have been satisfied, the fee is fixed or determinable and collection is considered probable. Products are generally shipped "FOB shipping point" with no right of return. Sales of services and system support are deferred and recognized ratably over the contract period. Sales with contingencies, such as rights of return, rotation rights, conditional acceptance provisions and price protection, are rare and insignificant and are deferred until the contingencies have been satisfied or the contingent period has lapsed. MRV's major revenue-generating products consist of: fiber optic components; switches and routers; console management; and physical layer products.

MRV generally warrants its products against defects in materials and workmanship for one to two year periods. The estimated cost of warranty obligations and sales returns and other allowances are recognized at the time of revenue recognition based on contract terms and prior claims experience.

Cash, Cash Equivalents and Time Deposits

MRV considers all highly liquid investments with an original maturity of 90 days or less to be cash equivalents. MRV maintains cash balances and investments in highly qualified financial institutions. At various times such amounts are in excess of insured limits. Time deposits of \$1.6 million and \$1.4 million as of December 31, 2004 and 2003, respectively, are restricted by short-term obligations.

Marketable Securities

MRV accounts for its marketable securities, which are available for sale, under the provisions of SFAS No. 115, "Accounting for Certain Investments in Debt and Equity Securities." During 2003, MRV changed its investment classification from "held-to-maturity" to "available for sale." The original cost of MRV's marketable securities approximated fair market value as of December 31, 2004 and 2003. As of December 31, 2004 and 2003, short-term and long-term marketable securities consisted principally of U.S. Treasury Bonds, Municipal Bonds and Corporate Bonds. Marketable securities mature at various dates through 2005. Purchase, sales and maturities of securities are presented in the accompanying Statement of Cash Flows.

Accounts Receivable

As of December 31, 2004, 2003 and 2002, the allowance for doubtful accounts totaled \$9.4 million, \$10.7 million and \$15.0 million, respectively. Increases in the allowance for doubtful accounts totaled \$1.4 million, \$1.8 million and \$2.2 million for the years ended

December 31, 2004, 2003 and 2002, respectively. Write-offs against the allowance for doubtful accounts totaled \$1.1 million, \$6.1 million and \$1.9 million for the years ended December 31, 2004, 2003 and 2002, respectively. During the year ended December 31, 2004, \$1.6 million of the allowance for doubtful accounts was reduced based on period-end assessments of required allowances and has been included in the accompanying Statement of Operations in the period in which such determination was made. If the financial condition of MRV's customers were to deteriorate, resulting in their inability to make payments, additional provisions would be recorded in that period.

Inventories

Inventories are stated at the lower of cost or market and consist of material, labor and overhead. Cost is determined by the first in, first out method. Inventories consisted of the following (in thousands):

| At December 31: | 2004 | 2003 |
|-----------------|----------|----------|
| Raw materials | \$ 7,272 | \$ 5,886 |
| Work-in process | 10,055 | 7,274 |
| Finished goods | 24,937 | 22,639 |
| Total | \$42,264 | \$35,799 |

Property and Equipment

Property and equipment are stated at cost. Depreciation is computed using the straight-line method over the estimated useful lives of the related assets, ranging from three to thirty-three years. Maintenance and repairs are charged to expense as incurred and the costs of additions and betterments that increase the useful lives of the assets are capitalized. Property and equipment consisted of the following (in thousands):

| At December 31: | 2004 | 2003 |
|-------------------------------------|--------------------|-----------|
| Property and equipment, at cost | | |
| Land | \$ 62 | \$ 57 |
| Building | 3,975 | 3,674 |
| Machinery and equipment | 43,80 4 | 43,611 |
| Furniture and fixtures | 6,507 | 5,709 |
| Computer hardware and software | 18,219 | 18,021 |
| Leasehold improvements | 6,178 | 5,848 |
| Construction in progress | 76 | 653 |
| | 78,821 | 77,573 |
| Less – accumulated depreciation and | | |
| amortization | (59,732) | (52,157) |
| Total | \$ 19,089 | \$ 25,416 |

Goodwill and Other Intangibles

MRV adopted SFAS No. 142, "Goodwill and Other Intangible Assets," effective January 1, 2002. In accordance with SFAS No. 142, goodwill

and intangible assets with indefinite lives will no longer be amortized, but instead will be measured for impairment at least annually, or when events indicate that impairment exists. Intangible assets that are determined to have definite lives will continue to be amortized over their useful lives (See Note 3, Goodwill and Other Intangible Assets).

Investments

MRV accounts for its investments in unconsolidated entities (see Note 2, *Principles of Consolidation*) under the provisions of Accounting Principles Board Opinions ("APB") No. 18, "The Equity Method of Accounting for Investments in common stock," and related interpretations. Unconsolidated investments, for which MRV does not have the ability to exercise significant influence over operating and financial polices, are accounted for under the cost method. Those investments, for which MRV does have the ability to exercise significant influence over operating and financial policies, are accounted for under the equity method. In general, all investments in which MRV owns greater than 20% of the voting stock, are accounted for under the equity method. Cost and equity method investments totaled \$3.1 million as of December 31, 2004 and 2003.

Under the cost and equity method, a loss in value of an investment, which is deemed to be other than a temporary decline, is recognized. Evidence of a loss in value might include, but would not necessarily be limited to, absence of an ability to recover the carrying amount of the investment or inability of the investee to sustain an earnings capacity, which would justify the carrying amount of the investment. During 2004, MRV sold its remaining ownership in an equity method investment resulting in a gain on the sale totaling \$2.0 million. This investment had previously been fully impaired. During the year ended December 31, 2002, MRV recognized impairment on investments totaling \$11.7 million, which has been included in Other Expense, net.

Impairment of Long-Lived Assets

MRV evaluates its long-term assets, such as property and equipment and other long-term assets, for impairment whenever events or changes in circumstances indicate that the carrying value of an asset may be impaired. MRV considers events or changes such as product discontinuance, plant closures, product dispositions and history of operating losses or other changes in circumstances to indicate that the carrying amount may not be recoverable. The carrying value of an asset is considered impaired when the anticipated undiscounted cash flow from such assets is less than its carrying value. In that event, a loss is recognized based on the amount by which the carrying value exceeds the fair market value. Fair market value is determined using the anticipated cash flows discounted at a rate based on MRV's weighted average costs of capital, which represents the blended after-tax costs of debt and equity.

For the year ended December 31, 2002, MRV determined that \$17.0 million in long-lived assets, primarily property and equipment, were impaired. This amount was determined to be impaired using the method discussed above. The remaining carrying values of the long-lived assets were determined to be realizable. This process and analysis requires

management to use significant judgment and apply assumptions regarding the future cash flows expected to result from the use of the assets and the eventual disposition of such assets. While management believes the carrying value of its assets are realizable based on its analysis, changes in the assumptions used in its models could produce significantly different results. The impairment of long-lived assets of \$17.0 million for the year ended December 31, 2002 has been included in the determination of operating loss in the accompanying Statement of Operations. The vast majority of these impairments were from the optical components group. There were no impairment losses recorded for the years ended December 31, 2004 and 2003.

Fair Value of Financial Instruments

MRV's financial instruments, including cash and cash equivalents, time deposits, short-term and long-term marketable securities, accounts receivable, accounts payable, accrued liabilities and short-term debt obligations are carried at cost, which approximates their fair market value due to the short-term nature of those instruments. The fair value of long-term debt obligations is estimated based on current interest rates available to MRV for debt instruments with similar terms, degrees of risk and remaining maturities. The carrying values of these obligations approximate their fair values.

Product Development and Engineering

Product development and engineering costs are charged to expense as incurred.

Software Development Costs

In accordance with SFAS No. 86, "Accounting for the Costs of Computer Software to be Sold, Leased, or Otherwise Marketed," development costs related to software products are expensed as incurred until the technological feasibility of the product has been established. Technological feasibility in MRV's circumstances occurs when a working model is completed. After technological feasibility is established, additional costs would be capitalized.

MRV believes its process for developing software is essentially completed concurrent with the establishment of technological feasibility, and, accordingly, no software development costs have been capitalized to date.

Advertising Costs

Advertising costs are charged to expense as incurred.

Income Taxes

Deferred income tax assets and liabilities are computed based on the temporary differences between the financial statement and income tax

bases of assets and liabilities using the statutory marginal income tax rate in effect for the years in which the differences are expected to reverse. Deferred income tax expenses or credits are based on the changes in the deferred income tax assets or liabilities from period to period.

Earnings (Loss) Per Share

Basic earnings (loss) per share is calculated by dividing net income (loss) by the weighted average number of common shares outstanding during the period. Diluted earnings (loss) per share is calculated by dividing net income (loss) by the sum of the weighted average number of common shares outstanding, plus all additional common shares that would have been outstanding if potentially dilutive securities or common stock equivalents had been issued. Stock options and warrants to purchase 11.0 million, 10.0 million and 12.6 million shares were not included in the computation of years 2004, 2003 and 2002 diluted loss per share because such stock options and warrants were considered anti-dilutive. Shares associated with MRV's outstanding 5% Convertible Notes issued in June 2003 ("2003 Notes") and 5% Convertible Subordinated Notes issued in June 1998 and paid in June 2003 ("1998 Notes") were not included in the computation of loss per share as they are anti-dilutive.

Stock-Based Compensation

MRV accounts for its employee stock plan under the intrinsic value method prescribed by APB No. 25, "Accounting for Stock Issued to Employees," and related interpretations, and has adopted the disclosure-only provisions of SFAS No. 123, "Accounting for Stock-Based Compensation" and as amended by SFAS No. 148, "Accounting for Stock-Based Compensation – Transition and Disclosure, an amendment of FASB Statement No. 123."

SFAS No. 123, as amended by SFAS No. 148, permits companies to recognize, as expense over the vesting period, the fair value of all stockbased awards on the date of grant. The Black-Scholes option valuation model was developed for use in estimating the fair value of traded options, which have no vesting restrictions and are fully transferable. Because MRV's stock-based compensation plans have characteristics significantly different from those of traded options and because changes in the subjective input assumptions can materially affect the fair value estimate, management believes that the existing option valuation models do not necessarily provide a reliable single measure of the fair value of awards from the plan. Therefore, as permitted, MRV applies the existing accounting rules under APB No. 25 and provides pro forma net loss and pro forma loss per share disclosures for stock-based awards made during the year as if the fair value method defined in SFAS No. 123, as amended, had been applied. Net loss and net loss per share for each of the three years in the period ended December 31, 2004 would have increased to the following pro forma amounts (in thousands, except per share data):

| For the year ended December 31: | 2004 | 2003 | 2002 |
|---|------------|------------|-------------|
| Net loss, as reported | \$(10,680) | \$(26,988) | \$(479,759) |
| Add: Stock-based employee compensation expense (income) included in reported net loss | 188 | (8,098) | 6,604 |
| Deduct: Total stock-based employee compensation expense determined under fair value based method for all awards | (17,593) | (23,520) | (24,775) |
| Pro forma net loss | \$(28,085) | \$(58,606) | \$(497,930) |
| Earnings per share: | | | |
| Basic and diluted net loss per share – as reported | \$ (0.10) | \$ (0.26) | \$ (5.25) |
| Basic and diluted net loss per share – pro forma | \$ (0.27) | \$ (0.57) | \$ (5.45) |

The following assumptions were applied: (i) no expected dividend yield for all periods, (ii) expected volatility ranging from 69% to 84% for 2004, 84% for 2003 and 104% for 2002, (iii) expected lives of 4 to 6 years for all years, (iv) and risk-free interest rates ranging from 2.68% to 6.73% for all years.

MRV accounts for option and warrant grants to non-employees using the guidance prescribed by SFAS No. 123, FASB Interpretation No. ("FIN") 44, "Accounting for Certain Transactions Involving Stock Compensation (an interpretation of APB Opinion No. 25)," and Emerging Issue Task Force ("EITF") No. 96-18, "Accounting for Equity Instruments That Are Issued to Other Than Employees for Acquiring, or In Conjunction with Selling, Goods, or Services," whereby the fair value of such option and warrant grants are measured using the fair value at the earlier of the date at which the non-employee's performance is completed or a performance commitment is reached.

Deferred stock expense is being amortized using the graded vesting method over four years. Using this method, approximately 57%, 26%, 13% and 4%, respectively, of each option's compensation expense is amortized in each of the four years following the date of grant. Deferred stock expense generated during 2001 was \$7.1 million generated through acquisitions. Deferred stock expense generated during 2000 was \$160.8 million of which \$106.6 million was generated through acquisitions and \$54.2 million was generated through stock options granted to LuminentOIC's former President and its former Chief Financial Officer ("CFO"). There has been no deferred stock expense generated since December 31, 2001. In June 2002 and September 2001, LuminentOIC's former CFO and its former President, respectively, resigned. As result of their resignations and as defined in their employment agreements, all outstanding stock options immediately vested and were exercisable through July 12, 2004 and September 11, 2003, respectively. MRV immediately recognized the remaining unamortized deferred stock expense of \$1.7 million and \$18.9 million during the years ended December 31, 2002 and 2001, respectively, as a result of their resignations. The following table presents deferred stock expense (income) recognized for the periods presented (in thousands).

| For the year ended December 31: | 2004 | 2003 | 2002 |
|--|-------|------------|-----------|
| Amortization of deferred stock expense | \$200 | \$ 3,478 | \$ 18,307 |
| Income from recapturing accelerated deferred stock expense due to terminations | (12) | (11,576) | (11,703) |
| Total | \$188 | \$ (8,098) | \$ 6,604 |

During the three years in the period ended December 31, 2004, certain stock option holders ceased to be employees of MRV, either through termination or sale. Since MRV used the graded vesting method of accounting to recognize the compensation over the related employment period, MRV recognized deferred stock expense related to options that were unvested. For the years ended December 31, 2004, 2003 and 2002, MRV reversed \$12,000, \$11.6 million and \$11.7 million, respectively, related to unvested, forfeited stock options for which compensation expense was previously recognized. Unamortized deferred stock expense totaling \$1.4 million and \$3.0 million for the years ended December 31, 2003 and 2002, respectively, has been reversed to additional paid-in capital relating to these employees. There was no unamortized deferred stock expense reversed to additional paid-in capital relating to these employees for the year ended December 31, 2004.

Transactions with Stock of a Subsidiary

In September 2003, MRV acquired 666,666 shares of Series A Preferred Stock, or 1.9% additional ownership interest, in Charlotte's Networks from a minority interest in exchange for \$50,000 in cash. This acquisition of a minority interest resulted in an extraordinary gain of \$2.0 million for the year ended December 31, 2003. MRV's ownership interest following this acquisition is approximately 60%. Charlotte's Networks is included in MRV's development stage enterprise group.

Recently Issued Accounting Standards

In November 2004, the FASB issued SFAS No. 151, "Inventory Costs, an amendment of ARB No. 43, Chapter 4." The amendments made by SFAS No. 151 clarify that abnormal amounts of idle facility expense, freight, handling costs and wasted materials (spoilage) should be recognized as current-period charges and require the allocation of fixed production overheads to inventory based on the normal capacity of the production facilities. The pronouncement is effective for inventory costs incurred during fiscal years beginning after June 15, 2005. Earlier application is permitted for inventory costs incurred during fiscal years after November 23, 2004. The adoption of this pronouncement is not expected to have a material effect on the financial condition, the results of operations or liquidity.

On December 16, 2004, the FASB issued SFAS No. 123 (revised 2004), "Share-Based Payment," which is a revision of SFAS No. 123,

"Accounting for Stock-Based Compensation." SFAS No. 123(R) supersedes APB Opinion No. 25, "Accounting for Stock Issued to Employees," and amends SFAS No. 95, "Statement of Cash Flows." Generally, the approach in SFAS No. 123(R) is similar to the approach described in SFAS No. 123. However, SFAS No. 123(R) requires all share-based payments to employees, including grants of employee stock options, to be recognized in the income statement based on their fair values. Pro forma disclosure is no longer an alternative.

SFAS No. 123(R) must be adopted no later than July 1, 2005. Early adoption will be permitted in periods in which financial statements have not yet been issued. MRV expects to adopt SFAS No. 123(R) on July 1, 2005, the beginning of its third quarter of 2005. MRV is currently evaluating the two methods of adoption allowed by SFAS No. 123(R): the modified-prospective transition method and the modified-retrospective transition method. The impact of adopting this pronouncement cannot be predicted at this time because it will depend on many factors, including the levels of share-based payments granted in the future. However, had MRV adopted this pronouncement in prior periods, the impact would approximate the impact of SFAS No. 123 described in the disclosure of the pro forma results in Note 2, Summary of Significant Accounting Policies — Stock-Based Compensation.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Reclassifications

Certain prior year amounts have been reclassified to conform to the current year presentation. These reclassifications include the increase in accounts receivable and short-term obligations in the amount of \$22.0 million and \$19.0 million at December 31, 2004 and 2003, respectively, relating to the recording of accounts receivable financing transactions with recourse, which were previously recorded as sales of accounts receivable with recourse.

3. Goodwill and Other Intangible Assets

As required by SFAS No. 142, MRV performed transitional impairment tests on goodwill and other intangibles assets with indefinite lives, which consisted of patents and assembled work forces, as of January 1, 2002. As a result of the impairment tests, MRV recorded a charge of \$296.4 million for the cumulative effect of an accounting change. Under SFAS No. 142, goodwill impairment exists if the net book value of a reporting unit exceeds its fair value. MRV, with the assistance of valuation experts, estimated the fair value of its reporting units using a combination of discounted cash flow analyses and comparisons with the market values of similar publicly traded companies.

Included in MRV's \$296.4 million impairment was a \$247.3 million charge related to the impairment of the goodwill associated with the Foreign Optical Components and Free-Space Optics reporting units. The Foreign Optical Components reporting unit included the goodwill generated from the FOCI Fiber Optic Communications, Inc. ("FOCI") and Quantum Optech, Inc. ("QOI") acquisitions (see Note 5, Disposition of Assets). The optical components, active and passive, markets continued to deteriorate and had contracted significantly. As a result, MRV determined that a significant portion of the goodwill acquired had been impaired. The goodwill impairment in the Free-Space Optics reporting unit reflected the significantly lower fair value calculated on the basis of reduced operating revenues and income as a result of a depressed market for those products.

The remaining \$49.1 million of impairment charge related to patents and assembled work forces associated with the Free-Space Optics reporting unit. The impairment of these patents and assembled work forces reflected the same circumstances as described above.

During the third quarter of 2002 and in addition to the transitional impairment testing, MRV reviewed its remaining goodwill and other intangible assets as required annually pursuant to SFAS No. 142. This impairment reduced the carrying value of goodwill and other intangible assets by recording an impairment charge of \$72.7 million, which consisted of \$70.4 million relating to goodwill and \$2.3 million relating to patents. MRV has determined that the annual impairment test will be performed on October 1st of each year MRV, with the assistance of valuation experts, estimated the fair value of its reporting units using a combination of discounted cash flow analyses and comparisons with the market values of similar publicly traded companies. During 2003, MRV impaired \$356,000 in goodwill from a foreign office that ceased operations. During the fourth quarter of 2004 and 2003, MRV completed the annual review of its remaining goodwill and other intangible assets. With the assistance of valuation experts, MRV determined that no further reductions in the carrying value of its goodwill and intangible assets were necessary.

For the year ended December 31, 2004, there were no changes in the carrying amounts of goodwill. The following table summarizes MRV's goodwill balances (in thousands):

| At December 31: | 2004 | 2003 |
|--------------------------|------------|------------|
| Gross carrying amount | \$ 195,869 | \$ 195,869 |
| Accumulated amortization | (165,904) | (165,904) |
| Total | \$ 29,965 | \$ 29,965 |

4. Restructuring costs

During the second quarter of 2001, LuminentOIC's management approved and implemented a restructuring plan in order to adjust operations and administration as a result of the dramatic slowdown in the communications equipment industry generally and the optical components sector in particular. Major actions primarily involved the reduction of workforce totaling \$1.3 million, the abandonment of certain

assets, including closed and abandoned facilities, amounting to \$12.8 million and the cancellation and termination of purchase commitments totaling \$6.2 million. MRV has a remaining obligation totaling \$607,000 for its fulfillment of a lease obligation on an abandoned facility that it expects to pay through cash on-hand through August 2007.

5. Disposition of Assets

On October 15, 2002, MRV's wholly owned subsidiary LuminentOIC, in a single transaction, sold (i) 53.4 million shares of the capital stock of FOCI amounting to approximately 78% of the total issued and outstanding share capital of FOCI and (ii) 19.0 million shares of the capital stock of QOI, representing approximately 100% of the total issued and outstanding share capital of QOI. The purchasers consisted of employees of FOCI, including its President. LuminentOIC continues to hold approximately 17% of the outstanding share capital of FOCI and no remaining ownership in QOI. The remaining ownership in FOCI has been recorded as a cost method investment in the accompanying Balance Sheet.

The consideration received by LuminentOIC for the sale of the FOCI and QOI shares, which was determined through arms' length negotiations between LuminentOIC and MRV on the one hand, and the purchasers on the other, consisted of \$8.0 million in cash and \$2.0 million in credit against future purchases of components. These net assets have been included in MRV's optical components group segment.

Prior to the sale of FOCI and QOI, MRV recorded an impairment loss on long-lived assets totaling \$15.9 million, which was measured, based on the lower of its carrying amount or fair value less cost to sell. The fair value less cost to sell was based on the sale price described above. The adjusted carrying amounts of the major classes of assets and liabilities sold along with the consideration received as of October 15, 2002 were as follows (in thousands):

| Consideration received: | |
|--|-----------|
| Cash | \$ 8,000 |
| Future product credit | 2,000 |
| | 10,000 |
| Assets and liabilities disposed of: | |
| Assets (primarily receivables, inventory and fixed assets) | 36,322 |
| Liabilities (primarily short-term and long-term obligations) | (23,614) |
| | \$ 12,708 |
| | |

The loss on disposition of FOCI and QOI has been included in Other Expense, net in the accompanying Statement of Operations for the year ended December 31, 2002. Through December 31, 2003, MRV utilized \$1.9 million of the future product credit, with the remaining \$86,000 of product credit utilized during the year ended December 31, 2004.

6. Accrued Liabilities

Accrued liabilities consisted of the following (in thousands):

| At December 31: | 2004 | 2003 |
|---------------------|----------|----------|
| Payroll and related | \$11,582 | \$ 8,850 |
| Product warranty | 5,255 | 5,337 |
| Other | 10,078 | 11,336 |
| Total | \$26,915 | \$25,523 |

7. Income Taxes

The provision for income taxes is as follows (in thousands):

| For the year ended December 31: | 2004 | 2003 | 2002 |
|---------------------------------|---------|---------|----------|
| Current: | | | |
| Federal | \$ | \$ - | \$ (329) |
| State | 151 | (10) | (3) |
| Foreign | 3,084 | 2,414 | 2,802 |
| | 3,235 | 2,404 | 2,470 |
| Deferred: | | | |
| Federal | - | - | 11,870 |
| State | | - | - |
| Foreign | (199) | (43) | (945) |
| | (199) | (43) | 10,925 |
| Total | \$3,036 | \$2,361 | \$13,395 |

The income tax provision differs from the amount computed by applying the federal statutory income tax rate to income before taxes as follows:

| For the year ended December 31: | 2004 | 2003 | 2002 |
|--|-------|-------|-------|
| Income tax provision (benefit, at statutory federal rate) | (34)% | (34)% | (34)% |
| State and local income taxes, net of federal income taxes effect | (6)% | (6)% | (1)% |
| Permanent differences | 1% | 24% | 31% |
| Foreign taxes at rates different than domestic rates | (10)% | 25% | 1% |
| Change in valuation allowance | 89% | -% | 6% |
| Total | 40% | 9% | 3% |

The components of deferred income taxes are as follows (in thousands):

| At December 31: | 2004 | 2003 |
|---|-----------|-----------|
| Allowance for doubtful accounts | \$ 1,537 | \$ 994 |
| Inventory reserve | 11,256 | 10,425 |
| Accrued liabilities | 4,322 | 2,610 |
| Other | 1,236 | 4,250 |
| | 18,351 | 18,279 |
| Valuation allowance | (15,956) | (18,279) |
| Net short-term deferred income tax assets | 2,395 | - |
| Net operating losses | 62,150 | 40,587 |
| Tax credits | 6,538 | 3,153 |
| Depreciation and amortization | 5,008 | 7,466 |
| Investments | 67 | 16,926 |
| Capital loss carryforwards | 104,188 | 88,717 |
| Other | • | (136) |
| | 177,951 | 156,713 |
| Valuation allowance | (177,951) | (154,119) |
| Net long-term deferred income tax assets | | 2,594 |
| Total | \$ 2,395 | \$ 2,594 |

MRV records valuation allowances against its deferred tax assets, when necessary, in accordance with SFAS No. 109, "Accounting for Income Taxes." Realization of deferred tax assets (such as net operating loss carryforwards and income tax credits) is dependent on future taxable earnings and is therefore uncertain. At least quarterly, MRV assesses the likelihood that its deferred tax asset balance will be recovered from future taxable income. To the extent management believes that recovery is unlikely, MRV establishes a valuation allowance against its deferred tax asset, increasing its income tax expense in the period such determination is made. During 2004, MRV recorded an additional valuation allowance totaling \$21.5 million against additional deferred income tax assets, principally domestic net operating losses and unrealized tax credits due to a history of domestic net losses. Although realization is not assured, management believes it is more likely than not that the net deferred tax assets will be realized.

As of December 31, 2004, MRV had federal and state net operating loss carryforwards available of \$145.2 million and \$148.2 million, respectively. For the year ended December 31, 2004, MRV generated additional federal and state net operating losses of \$28.1 million and \$5.6 million, respectively. For federal and state income tax purposes, the net operating losses are available to offset future taxable income through 2024 and 2014, respectively. Tax credits of \$3.9 million and \$3.2 million as of December 31, 2004 and 2003, respectively, expire at various dates through 2024. Capital loss carryforwards totaling \$227.4 million and \$221.8 million as of December 31, 2004 and 2003, respectively, begin to expire in 2006.

In 1995, MRV, through a subsidiary in Israel, qualified for a program under which it is eligible for a tax exemption on its income for a period

of ten years from the beginning of the benefits period. This benefit is due to expire in 2006. Due to operating losses at this subsidiary, no tax benefit was received for any of the years ended December 31, 2004, 2003 and 2002.

MRV has not recorded U.S. income tax expense for foreign earnings that it has declared as indefinitely reinvested offshore, thus reducing its overall income tax expense. At December 31, 2004, MRV had approximately \$17 million of accumulated but undistributed earnings at certain foreign entities. The amount of earnings designated as indefinitely reinvested offshore is based upon MRV's expectations of the future cash needs of its foreign entities. Income tax considerations are also a factor in determining the amount of foreign earnings to be repatriated.

In the event actual cash needs of MRV's U.S. entities exceeds its current expectations or the actual cash needs of its foreign entities are less than expected, MRV may need to repatriate foreign earnings which have been designated as indefinitely reinvested offshore. This would result in additional income tax expense being recorded.

American Jobs Creation Act of 2004 - Repatriation of Foreign Earnings

In December 2004, the FASB issued FASB Staff Position No. FAS 109-2 ("FAS 109-2"), "Accounting and Disclosure Guidance for the Foreign Earnings Repatriation Provision within the American Jobs Creations Act of 2004" ("AJCA"). The AJCA introduces a limited time 85% dividends received deduction on the repatriation of certain foreign earnings to a U.S. taxpayer (repatriation provision), provided certain criteria are met. FAS109-2 provides accounting and disclosure guidance for the repatriation provision. Although FAS 109-2 is effective immediately, MRV does not expect to be able to complete its evaluation of the repatriation provision until after Congress or the Treasury Department provides additional clarifying language on key elements of the provision. In January 2005, the Treasury Department began to issue the first of a series of clarifying guidance documents related to this provision. MRV expects to complete its evaluation of the effects of the repatriation provision within the second and third quarters of 2005.

8. Short-Term and Long-Term Obligations

Short-term obligations consist of secured and unsecured lines of credit, short-term loans and notes entered into with certain financial institutions. As of December 31, 2004 and 2003, these short-term obligations totaled \$25.2 million and \$20.6 million, respectively. Certain assets of MRV's subsidiaries including customer accounts receivables have been pledged as collateral on these borrowings. The weighted average interest rate on these obligations was approximately 4% and 5% as of December 31, 2004 and 2003, respectively. These obligations are incurred and settled in the local currencies of the respective subsidiaries.

Long-term debt consisted of secured notes payable to financial institutions bearing interest at rates ranging from 4.7% to 9.4%. Principal and interest is payable in monthly and quarterly installments through December 2005. As of December 31, 2004 and 2003, long-term debt totaled \$204,000 and \$404,000, respectively. As of December 31, 2004,

\$92,000 of long-term debt is due during 2005 with the remaining balance of \$112,000 due in 2006.

9. Interest Rate Swap

MRV entered into an interest rate swap (the "Swap") in the second quarter of 2000 to effectively change the interest rate characteristics of its \$50.0 million variable-rate term loan presented in Long-Term Debt, with the objective of fixing its overall borrowing costs. The Swap was considered to be 100% effective and was therefore recorded using the short-cut method. The Swap was designated as a cash flow hedge and changes in fair value of the debt were generally offset by changes in fair value of the related security, resulting in negligible net impact. The gain or loss from the change in fair value of the Swap as well as the offsetting change in the hedged fair value of the long-term debt were recognized in other comprehensive loss. In February 2002, MRV paid off the Long-Term Debt of \$50.0 million and terminated the Swap. The realized loss on the Swap of \$3.2 million has been recorded as interest expense and is included in other expense, net in the accompanying Statement of Operations for 2002.

10. Convertible Debt

In June 2003, MRV completed the sale of \$23.0 million principal amount of five-year 5% convertible notes due in 2008, to an institutional investor, in a private placement. The 2003 Notes bear interest at 5% per annum and are convertible into shares of MRV's common stock at a conversion price of \$2.32 per share. As a condition of the 2003 Notes, MRV may not: (i) incur any form of unsecured indebtedness in excess of \$17.0 million, plus obligations arising from accounts receivable financing transactions with recourse in the ordinary course of business and consistent with past practices, (ii) repurchase its common stock for an aggregate amount in excess of \$5.0 million, or (iii) declare or pay any dividend on any of its capital stock, other than dividends of common stock with respect to its common stock. As of December 31, 2004, MRV was in compliance with the conditions of the 2003 Notes. MRV is using the net proceeds from the sale of the 2003 Notes for general corporate purposes and working capital. Interest Expense related to these 2003 Notes amounted to \$1.2 million and \$672,000 for the years ended December 31, 2004 and 2003, respectively.

In June 1998, MRV issued \$100.0 million principal amount of its 1998 Notes. During 2003, MRV retired \$5.9 million principal amount of 1998 Notes in exchange for the issuance of 4.2 million shares of its common stock to the holders of these notes, resulting in a remaining outstanding balance of \$26.0 million at maturity. On June 15, 2003, the balance of MRV's outstanding 1998 Notes matured and MRV repaid and retired them. For 2003, MRV recorded a loss on the extinguishment of debt totaling \$5.4 million, net of associated taxes, in other expense, net in the accompanying Statement of Operations. This loss was recognized in accordance with Emerging Issues Task Force Issue 02-15 released in September 2002. During the year ended December 31, 2002, MRV acquired \$53.0 million in principal amount of these notes in exchange for its issuance of 12.3 million shares of its common stock and \$19.7 million in cash to the holders of these notes. During 2002, MRV recognized a gain of \$393,000 in connection with the extinguishment of

debt. MRV incurred \$809,000 and \$3.2 million in interest expense relating to the 1998 Notes for 2003 and 2002, respectively.

11. Commitments and Contingencies Lease Commitments

The Company leases all of its facilities and certain equipment under non-cancelable operating lease agreements expiring in various years through 2015. The aggregate minimum annual lease payments under leases in effect as of December 31, 2004 were as follows (in thousands):

| Year Ending December 31, | |
|--------------------------|----------|
| 2005 | \$ 5,979 |
| 2006 | 4,492 |
| 2007 | 3,543 |
| 2008 | 2,945 |
| 2009 | 2,732 |
| Thereafter | 8,467 |
| Total | \$28,158 |

Annual rental expense under non-cancelable operating lease agreements for the years ended December 31, 2004, 2003 and 2002, was \$6.3 million, \$6.0 million and \$9.6 million, respectively.

Royalty Commitment

Through subsidiaries in Israel, MRV is obligated to the Office of the Chief Scientist of the Government of Israel (Chief Scientist) with respect to the government's participation in research and development expenses for certain products. Amounts received by MRV from the participation of the Chief Scientist were offset against the related research and development expenses incurred. Accordingly, MRV's royalty to the Chief Scientist is calculated at a rate of 2% to 5% of sales of such products developed with the participation up to the dollar amount of such participation. MRV received participation from the Chief Scientist that amounted to \$31,000, \$287,000 and \$746,000 for the years ended December 31, 2004, 2003 and 2002, respectively. The remaining future obligation as of December 31, 2004 is approximately \$1.4 million which is contingent on generating sufficient sales of this selected product line.

Litigation

MRV has received notices from third parties alleging possible infringement of patents with respect to product features or manufacturing processes. Management believes such notices are common in the communications industry because of the large number of patents that have been filed on these subjects. MRV's policy is to discuss these notices with the senders in an effort to demonstrate that MRV's products and/or processes do not violate any patents. From time to time, MRV has been involved in such discussions with IBM, Lucent, Ortel, Nortel, Rockwell, the Lemelson Foundation and Finisar. MRV does not believe that any of its products or processes violates any of the patents asserted by these parties and MRV further believes that it has meritorious defenses if any legal action is taken

by any of these parties. However, if one or more of these parties was to assert a claim and gain a conclusion unfavorable to MRV such claims could materially and adversely affect the business, operating results and financial condition of MRV.

MRV has been named as a defendant in lawsuits involving matters that MRV considers routine to the nature of its business. Management is of the opinion that the ultimate resolution of all such matters will not have a material adverse effect on the accompanying financial statements.

12. Stockholders' Equity

Authorized Shares

On May 10, 2000, the Board of Directors and stockholders of MRV approved an increase in the authorized number of shares of its \$0.0017 par value common stock from 80.0 million to 160.0 million shares relating to the two-for-one stock split distributed on May 26, 2000. MRV is authorized to issue up to 1.0 million shares of its \$0.01 par value preferred stock, of which none is issued or outstanding as of December 31, 2004 and 2003.

In October 2003, MRV issued and sold 1,667,000 shares of its common stock to several institutional investors, raising net proceeds of approximately \$5.0 million. These shares were taken from its shelf registration statement that was declared effective by the SEC in June 2003, which registered \$20.0 million of its common stock that MRV may issue and sell from time to time.

Stock Repurchase Program

On June 13, 2002, MRV announced that its Board of Directors had approved a program to repurchase up to 7.0 million shares of its common stock. Through December 31, 2004, MRV had repurchased a total of 1.3 million shares of its common stock at a cost of \$1.3 million under this program. MRV did not repurchase any of its common stock during the year ended December 31, 2004. MRV can repurchase up to 5.7 million additional shares of its common stock under this program.

Stock Options

MRV has stock option and warrant plans that provide for granting options and warrants to purchase shares of MRV's common stock to employees, directors and non-employees performing consulting or advisory services for MRV. The plans provide for the granting of options, which meet the Internal Revenue Code requirements for qualification as incentive stock options, as well as nonstatutory options and are at the discretion of the board of directors. Under these plans, stocks option and warrant exercise prices generally equal the fair market value of MRV's common stock at the date of grant. The options and warrants generally vest over three to five years with expiration dates ranging from six and ten years from the date of grant depending on the plan. The plans provide for the issuance of 4.8 million shares of common stock over the remaining life of the plans.

Information with respect to MRV's stock option and warrant plans is as follows (in thousands, except per share data):

| | 2004 | | 2003 | | 2002 | |
|--|---------|------------------------|---------|------------------------|---------|------------------------|
| | Shares | Wtd. Avg. Ex. Price | Shares | Wtd. Avg. Ex. Price | Shares | Wtd. Avg. Ex. Price |
| Outstanding, beginning of year | 10,029 | \$3.58 | 12,626 | \$ 6.90 | 12,549 | \$ 9.93 |
| Granted | 2,438 | \$3.08 | 2,543 | \$ 2.00 | 3,116 | \$ 0.90 |
| Exercised | (381) | \$1.61 | (758) | \$ 2.31 | (50) | \$ 2.60 |
| Cancelled and forfeited | (1,123) | \$7.58 | (4,382) | \$12.44 | (2,989) | \$13.47 |
| Outstanding, end of year | 10,963 | \$3.66 | 10,029 | \$ 3.58 | 12,626 | \$ 6.90 |
| Exercisable, end of year | 5,363 | \$4.91 | 4,483 | \$ 6.00 | 6,811 | \$10.76 |
| Weighted average fair value of options granted during year | | \$1.77 | | \$ 1.58 | | \$ 0.83 |

Information about MRV stock options outstanding at December 31, 2004 is summarized as follows (in thousands, except per share data and remaining contractual lives):

| Exercise Prices Per Share | Number Outstanding as of 2004 | Wtd. Avg. Ex. Price | Wtd. Avg. Remaining Contract Life | Number Exercisable as of 2004 | Wtd. Avg. Ex. Price |
|---------------------------|-------------------------------------|------------------------|---|-------------------------------------|------------------------|
| \$0.67 - \$1.10 | 2,424 | \$ 0.91 | 7.62 Years | 1,109 | \$ 0.91 |
| \$1.11 - \$2.63 | 2,497 | \$ 1.99 | 5.89 Years | 1,339 | \$ 2.29 |
| \$2.66 - \$2.99 | 2,273 | \$ 2.83 | 7.45 Years | 631 | \$ 2.85 |
| \$3.00 - \$3.67 | 2,250 | \$ 3.22 | 7.32 Years | 988 | \$ 3.07 |
| \$3.82 - \$50.38 | 1,519 | \$12.64 | 4.45 Years | 1,296 | \$13.46 |
| \$0.67 – \$50.38 | 10,963 | \$ 3.66 | 6.69 Years | 5,363 | \$ 4.91 |

13. Segment Reporting and Geographical Information

MRV divides and operates its business based on three segments: the networking group, the optical components group and development stage enterprise group. The networking group designs, manufactures and distributes optical networking solutions and Internet infrastructure products. The optical components group designs, manufactures and distributes optical components and optical subsystems. The development stage enterprise group develops optical components, subsystems and networks and products for the infrastructure of the Internet. Segment information is therefore being provided on this basis.

The accounting policies of the segments are the same as those described in the summary of significant accounting polices previously described. MRV evaluates segment performance based on revenues and operating expenses of each segment. As such, there are no separately identifiable segment assets nor are there any separately identifiable Statement of Operations data below operating income.

Business segment revenues are as follows (in thousands):

| For the year ended December 31: | 2004 | 2003 | 2002 |
|------------------------------------|--------------|-----------|-----------|
| Networking group | \$227,192 | \$202,399 | \$185,662 |
| Optical components group | 46,431 | 38,790 | 67,284 |
| Development stage enterprise group | - | - | - |
| | 273,623 | 241,189 | 252,946 |
| Intersegment adjustment | (1,965) | (2,206) | (414) |
| Total | \$271,658 | \$238,983 | \$252,532 |

Revenues by product line are as follows (in thousands):

| For the year ended December 31: | 2004 | 2003 | 2002 |
|---------------------------------|-----------|-----------|-----------|
| Fiber optic components | \$ 48,466 | \$ 39,037 | \$ 68,348 |
| Switches and routers | 72,179 | 64,028 | 57,571 |
| Console management products | 20,561 | 16,626 | 17,361 |
| Physical layer products | 67,349 | 65,349 | 67,258 |
| Services | 24,375 | 21,612 | 21,444 |
| Other networking products | 38,728 | 32,331 | 20,550 |
| Total | \$271,658 | \$238,983 | \$252,532 |

For the years ended December 31, 2004, 2003 and 2002, MRV had no single customer that accounted for 10% or more of revenues. As of December 31, 2004 and 2003, MRV had no single customer that accounted for 10% or more of accounts receivable. MRV does not track customer revenue by region for each individual reporting segment.

A summary of external revenue by geographical region is as follows (in thousands):

| For the year ended December 31: | 2004 | 2003 | 2002 |
|---------------------------------|-----------|-----------|-----------|
| Americas | \$ 63,736 | \$ 51,505 | \$ 64,675 |
| Europe | 192,021 | 171,957 | 157,998 |
| Asia Pacific | 13,172 | 14,277 | 28,560 |
| Other regions | 2,729 | 1,244 | 1,299 |
| Total | \$271,658 | \$238,983 | \$252,532 |

A summary of long-lived assets, consisting principally of property and equipment, by geographical region is as follows (in thousands):

| At December 31: | 2.004 | 2003 | 2002 |
|-----------------|----------|-----------|-----------|
| Americas | \$ 1,955 | \$ 2,966 | \$ 7,295 |
| Europe | 8,136 | 8,787 | 10,362 |
| Asia Pacific | 8,998 | 13,663 | 17,512 |
| Other regions | | - | - |
| Total | \$19,089 | \$ 25,416 | \$ 35,169 |

Business segment operating income (loss) is as follows (in thousands):

| For the year ended December 31: | 2004 | 2003 | 2002 |
|------------------------------------|------------|------------|-------------|
| Networking group | \$ 4,746 | \$ (2,207) | \$ (58,764) |
| Optical components group | (9,840) | (11,112) | (62,655) |
| Development stage enterprise group | (2,094) | (6,820) | (24,067) |
| | (7,188) | (20,139) | (145,486) |
| Intersegment adjustment | | - | (828) |
| Total | \$ (7,198) | \$(20,139) | \$(146,314) |

Income (loss) before provision for income taxes is as follows (in thousands):

| For the year ended December 31: | 2004 | 2003 | 2002 |
|---------------------------------|--------------|------------|-------------|
| Domestic | \$. (9,344). | \$(12,917) | \$(143,119) |
| Foreign . | 1.700 | (11,710) | (323,245) |
| Total | \$ (7,644) | \$(24,627) | \$(466,364) |

14. 401(K) Plans

MRV has 401(K) savings plans (the Plans) at certain subsidiaries under which all eligible employees may participate. The Plans provide for MRV to make matching contributions to all eligible employees. For the years

ended December 31, 2004, 2003 and 2002, approximately \$575,000, \$627,000 and \$568,000, respectively, was charged as expense related to these plans.

15. Supplemental Statements of Cash Flow Information

Supplemental Statements of Cash Flow information for each of the years ended December 31, 2004, 2003 and 2002 is as follows (in thousands):

| For the year ended December 31: | 2004 | 2003 | 2002 |
|---|------------|---------|----------|
| Supplemental disclosure of cash flow information: | | | |
| Cash paid during year for interest | \$2,736 | \$2,464 | \$ 2,168 |
| Cash paid during year for income taxes | \$3,380 | \$3,098 | \$ 2,724 |
| Supplemental schedule of non-cash investing and financing activities: | | | |
| Common stock issued in connection with investments in subsidiaries | s - | \$ - | \$ 7,052 |
| Common stock issued in connection with exchange of 1998 Notes | s - | \$6,014 | \$31,647 |
| Non-cash deferred stock expense | s - | \$1,369 | \$ 2,990 |
| Non-cash consideration received in sale of FOCI and QOI | s - | \$ - | \$ 2,000 |

16. Other Income (Expense), Net

Other income (expense), net consisted of the following (in thousands):

| For the year ended December 31: | 2004 | 2003 | 2002 |
|---|----------|-----------|------------|
| Interest income | \$1;084 | \$ 1,079 | \$ 3,071 |
| Gain on sale of investment | 2,000 | - | - |
| Loss on disposition of assets | (235) | (306) | (243) |
| Loss on early extinguishment of debt | <u>.</u> | (5,438) | (1,363) |
| Share of losses on equity method investments | - | - | (4,283) |
| Impairment loss on cost and equity method investments | - | - | (11,741) |
| Loss on termination of interest rate swap | _ | - | (3,198) |
| Other, net | (164) | 1,397 | 72 |
| Total | \$2,685 | \$(3,268) | \$(17,685) |

17. Quarterly Financial Data (Unaudited)

| For the three months ended: | Mar. 31, 2004 | June 30, 2004 | Sept. 30, 2004 | Dec. 31, 2004 |
|---|---|---|---|--|
| Revenue | \$ 59,614 | \$ 67,231 | \$ 62,941 | \$ 81,872 |
| Cost of goods sold | 39,189 | 43,669 | 42,807 | 54,115 |
| Gross profit | 20,425 | 23,562 | 20,134 | 27,757 |
| Operating costs and expenses: | | | | |
| Product development and engineering | 6,338 | 5,805 | 6,373 | 6,433 |
| Selling, general and administrative | 18,150 | 18,676 | 16,855 | 20,436 |
| Total operating costs and expenses | 24,488 | 24,481 | 23,228 | 26,869 |
| Operating income (loss) | (4,063) | (919) | (3,094) | 888 |
| Interest Expense | (593) | (707) | (720) | (1,121) |
| Other income (expense), net | 418 | (333) | 801 | 1,799 |
| Income (loss) before taxes | (4,238) | (1,959) | (3,013) | 1,566 |
| Provision for taxes | 539 | 1,110 | 739 | 648 |
| Net income (loss) | \$ (4,777) | \$ (3,069) | \$ (3,752) | \$ 918 |
| Earnings per share: | | | | |
| Basic | \$ (0.05) | \$ (0.03) | \$ (0.04) | \$ 0.01 |
| Diluted | \$ (0.05) | \$ (0.03) | \$ (0.04) | \$ 0.01 |
| Weighted average number of shares: | , , | . , | , , | |
| Basic | 105,504 | 105,596 | 104,114 | 103,973 |
| Diluted | 105,504 | 105,596 | 104,114 | 107,582 |
| For the three months ended: | Mar. 31, 2003 | June 30, 2003 | Sept. 30, 2003 | Dec. 31, 2003 |
| Revenue | \$ 51,117 | \$ 61,958 | \$ 56,817 | \$ 69,091 |
| Cost of goods sold | 36,514 | 42,133 | 38,397 | 47,849 |
| Gross profit | 14,603 | 19,825 | 18,420 | 21,242 |
| Operating costs and expenses: | , | ,020 | ,.20 | 2., |
| Product development and engineering | 8,736 | 6,890 | 8,088 | 7,258 |
| Selling, general and administrative | | 0,070 | 0,000 | |
| Semigi general and administrative | 11918 | 16 698 | 16.841 | |
| Impairment of goodwill and other intangibles | 11,918 | 16,698 - | 16,841 356 | 17,444 |
| Impairment of goodwill and other intangibles Total operating costs and expenses | | | 356 | 17,444 |
| Total operating costs and expenses | 20,654 | 23,588 | 356 25,285 | 17,444 - 24,702 |
| Total operating costs and expenses Operating loss | 20,654 (6,051) | 23,588 (3,763) | 356 25,285 (6,865) | 24,702 (3,460) |
| Total operating costs and expenses Operating loss Interest expense | 20.654 (6.051) (873) | 23,588 (3,763) (855) | 356 25,285 (6,865) (586) | 24,702 (3,460) (856) |
| Total operating costs and expenses Operating loss Interest expense Other income (expense), net | 20,654 (6,051) (873) 952 | 23,588 (3,763) (855) (4,656) | 356 25,285 (6,865) (586) 9 | 24,702 (3,460) (856) 427 |
| Total operating costs and expenses Operating loss Interest expense Other income (expense), net Loss before taxes and extraordinary gain | 20,654 (6,051) (873) 952 (5,972) | 23,588 (3,763) (855) (4,656) (9,274) | 356 25,285 (6,865) (586) 9 (7,442) | 24,702 (3,460) (856) 427 (3,889) |
| Total operating costs and expenses Operating loss Interest expense Other income (expense), net Loss before taxes and extraordinary gain Provision for taxes | 20,654 (6,051) (873) 952 (5,972) 428 | 23,588 (3,763) (855) (4,656) (9,274) 493 | 356 25,285 (6,865) (586) 9 (7,442) 412 | 24,702 (3,460) (856) 427 (3,889) 1,028 |
| Total operating costs and expenses Operating loss Interest expense Other income (expense), net Loss before taxes and extraordinary gain Provision for taxes Loss before extraordinary gain | 20,654 (6,051) (873) 952 (5,972) | 23,588 (3,763) (855) (4,656) (9,274) | 356 25,285 (6,865) (586) 9 (7,442) 412 (7,854) | 24,702 (3,460) (856) 427 (3,889) |
| Total operating costs and expenses Operating loss Interest expense Other income (expense), net Loss before taxes and extraordinary gain Provision for taxes Loss before extraordinary gain Extraordinary gain, net of tax | 20,654 (6,051) (873) 952 (5,972) 428 (6,400) | 23,588 (3,763) (855) (4,656) (9,274) 493 (9,767) | 356 25,285 (6,865) (586) 9 (7,442) 412 (7,854) | 24,702 (3,460) (856) 427 (3,889) 1,028 (4,917) |
| Total operating costs and expenses Operating loss Interest expense Other income (expense), net Loss before taxes and extraordinary gain Provision for taxes Loss before extraordinary gain Extraordinary gain, net of tax Net loss | 20,654 (6,051) (873) 952 (5,972) 428 (6,400) | 23,588 (3,763) (855) (4,656) (9,274) 493 (9,767) | 356 25,285 (6,865) (586) 9 (7,442) 412 (7,854) 1,950 \$ (5,904) | 17,444 - 24,702 (3,460) (856) 427 (3,889) 1,028 (4,917) |
| Total operating costs and expenses Operating loss Interest expense Other income (expense), net Loss before taxes and extraordinary gain Provision for taxes Loss before extraordinary gain Extraordinary gain, net of tax Net loss Loss before extraordinary gain | 20,654 (6,051) (873) 952 (5,972) 428 (6,400) \$ (6,400) \$ (0.06) | 23,588 (3,763) (855) (4,656) (9,274) 493 (9,767) - \$ (9,767) \$ (0.10) | 356 25,285 (6,865) (586) 9 (7,442) 412 (7,854) 1,950 \$ (5,904) \$ (0.08) | 17,444 24,702 (3,460) (856) 427 (3,889) 1,028 (4,917) \$ (4,917) |
| Total operating costs and expenses Operating loss Interest expense Other income (expense), net Loss before taxes and extraordinary gain Provision for taxes Loss before extraordinary gain Extraordinary gain, net of tax Net loss | 20,654 (6,051) (873) 952 (5,972) 428 (6,400) | 23,588 (3,763) (855) (4,656) (9,274) 493 (9,767) | 356 25,285 (6,865) (586) 9 (7,442) 412 (7,854) 1,950 \$ (5,904) | 17,444 - 24,702 (3,460) (856) 427 (3,889) 1,028 (4,917) |

Management's Report on Internal Control Over Financial Reporting

Internal control over financial reporting refers to the process designed by, or under the supervision of, our Chief Executive Officer and Chief Financial Officer, and effected by our Board of Directors, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the United States, and includes those policies and procedures that:

- Pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of our assets:
- Provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with accounting principles generally accepted in the United States, and that our receipts and expenditures are being made only in accordance with authorization of our management and directors; and
- Provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on the financial statements.

Internal control over financial reporting cannot provide absolute assurance of achieving financial reporting objectives because of its inherent limitations. Internal control over financial reporting is a process that involves human diligence and compliance and is subject to lapses in judgment and breakdowns resulting from human failures. Internal control over financial reporting also can be circumvented by collusion or improper management override. Because of such limitations, there is a risk that material misstatements may not be prevented or detected on a timely basis by internal control over financial reporting. However, these inherent limitations are known features of the financial reporting process. Therefore, it is possible to design into the process safeguards to reduce, though not eliminate, this risk. Management is responsible for

establishing and maintaining adequate internal control over financial reporting for the Company.

Management has used the framework set forth in the report entitled Internal Control – Integrated Framework published by the Committee of Sponsoring Organizations of the Treadway Commission, known as COSO, to evaluate the effectiveness of the Company's internal control over financial reporting. Management has concluded that our internal control over financial reporting was effective as of December 31, 2004. Ernst & Young LLP, our independent registered public accounting firm, has issued an attestation report on management's assessment of our internal control over financial reporting, which is included below.

Noam Lotan
President and Chief Executive Officer

Shay Gonen Chief Financial Officer

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders of MRV Communications, Inc.

We have audited the accompanying consolidated balance sheets of MRV Communications, Inc. (and subsidiaries) as of December 31, 2004 and 2003, and the related consolidated statements of operations, stockholders' equity and comprehensive income (loss), and cash flows for each of the three years in the period ended December 31, 2004. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of MRV Communications, Inc. (and subsidiaries) as of December 31, 2004 and 2003, and the consolidated results of their operations and their cash flows for each of the three years in the period ended December 31, 2004, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the effectiveness of MRV Communication, Inc.'s (and subsidiaries) internal control over financial reporting as of December 31, 2004, based on criteria established in Internal Control – Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 25, 2005 expressed an unqualified opinion thereon.

Ernst + Young LLP

Woodland Hills, California February 25, 2005

Report of Independent Registered Public Accounting Firm on Internal Control Over Financial Reporting

The Board of Directors and Stockholders of MRV Communications, Inc.

We have audited management's assessment, included in the accompanying Management's Report on Internal Control Over Financial Reporting, that MRV Communications, Inc. maintained effective internal control over financial reporting as of December 31, 2004 based on criteria established in Internal Control – Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (the COSO criteria). MRV Communications, Inc.'s management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting. Our responsibility is to express an opinion on management's assessment and an opinion on the effectiveness of the company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, evaluating management's assessment, testing and evaluating the design and operating effectiveness of internal control, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (I) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide

reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, management's assessment that MRV Communications, Inc. maintained effective internal control over financial reporting as of December 31, 2004, is fairly stated, in all material respects, based on the COSO criteria. Also, in our opinion, MRV Communications, Inc. maintained, in all material respects, effective internal control over financial reporting as of December 31, 2004, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of MRV Communications, Inc. (and subsidiaries) as of December 31, 2004 and 2003, and the related consolidated statements of operations, stockholders' equity and comprehensive income (loss), and cash flows for each of the three years in the period ended December 31, 2004 of MRV Communications, Inc. and our report dated February 25, 2005 expressed an unqualified opinion thereon.

Ernet + Young LLP

Woodland Hills, California February 25, 2005

DIRECTORS AND OFFICERS

Directors

Igal Shidlovsky, Ph.D.(1)(2)(3)(4)

Managing Director, Global Technologies

Guenter Jaensch, Ph.D.(2)(3)(4)

President, Jaensch Technologies Chairman of the Board, Biophan Technologies, Inc.

Daniel Tsui, Ph.D.(2)(3)(4)

Professor of Electrical Engineering, Princeton University 1998 Nobel Prize Laureate, Physics

Baruch Fischer, Ph.D.(2)

Max Knoll Professor of Electro Optics and Electronics Professor of Electrical Engineering, Technion, Israel Institute of Technology

Harold Furchtgott-Roth, Ph.D. (Director nominee)

President, Furchtgott-Roth Economic Enterprises Former commissioner of the Federal Communications Commission

- (1) Lead Independent director
- (2) Member of the Compensation Committee
- (3) Member of the Nomination and Governance Committee
- (4) Member of the Audit Committee

Executive Officers

Shlomo Margalit, Ph.D. 5

Chairman of the Board, Chief Technical Officer and Secretary

Noam Lotan(5)

Director, President and Chief Executive Officer

Shay Gonen

Chief Financial Officer

Near Margalit, Ph.D.

Chief Executive Officer, Luminent, Inc.

Kevin Rubin

Vice President of Finance and Chief Compliance Officer

(5) Member of the Executive Committee

COMPANY INFORMATION

Annual Meeting

MRV Communications' 2005 Annual Meeting of Stockholders will be held on Friday, November 18, 2005 at the Warner Center Marriott in Woodland Hills, California.

Stock Exchange And Trading Information

MRV common stock is traded on the Nasdaq National Market under the symbol "MRVC."

| Common Stock Market Price | High | Low |
|---------------------------|--------|--------|
| 2004 | | |
| First Quarter | \$4.96 | \$2.78 |
| Second Quarter | \$3.48 | \$2.17 |
| Third Quarter | \$3.02 | \$2.22 |
| Fourth Quarter | \$4.06 | \$2.62 |
| 2003 | | |
| First Quarter | \$1.48 | \$1.02 |
| Second Quarter | \$2.62 | \$1.11 |
| Third Quarter | \$3.40 | \$1.82 |
| Fourth Quarter | \$4.05 | \$2.95 |

MRV has never paid cash dividends on its common stock and has no present plans to do so. There were 2,986 registered stockholders as of February 15, 2005.

Investor Relations

The financial information in this report, in the opinion of management, substantially conforms with the information required in the "Annual Report on Form 10-K" filed with Securities and Exchange Commission in March 2005. However, the Annual Report on Form 10-K also contains additional information, and it can be viewed at ir.mrv.com. For information about MRV, additional copies of this report, Form 10-K or other financial information without charge, contact:

Investor Relations MRV Communications, Inc. 20415 Nordhoff Street Chatsworth, California 91311 (818) 886-MRVC (6782)

You may also contact us by sending an email to ir@mrv.com or by visiting the Investor Relations section on the MRV Website at ir.mrv.com.

Transfer Agent

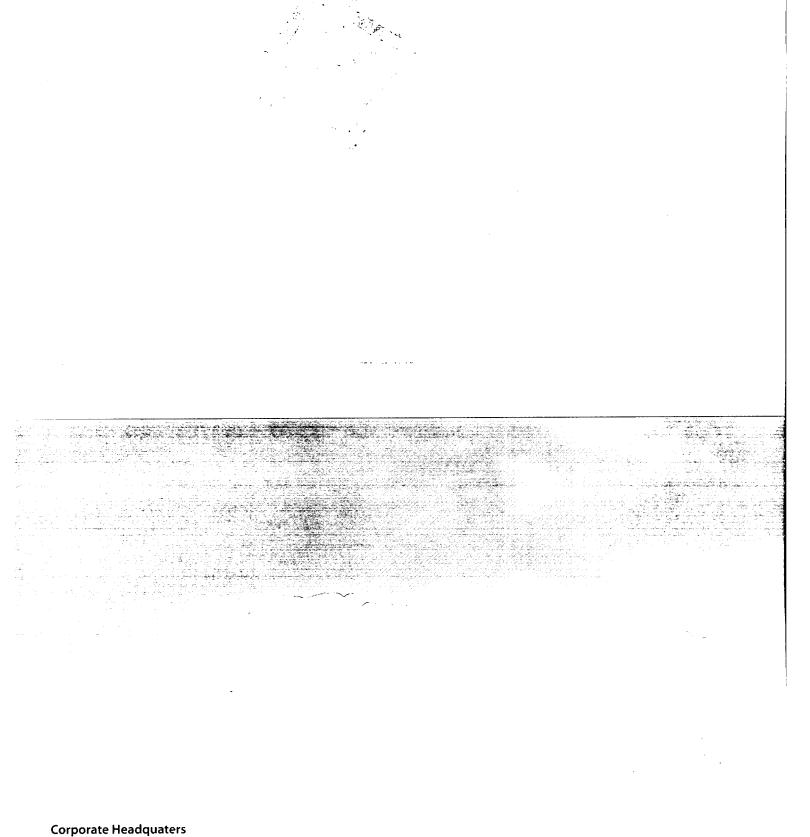
American Stock Transfer & Trust Company New York, New York

Independent Registered Public Accounting Firm

Ernst & Young LLP Woodland Hills, California

Legal Counsel

Kirkpatrick & Lockhart Nicholson Graham LLP Los Angeles, California



MRV Communications, Inc. 20415 Nordhoff Street Chatsworth, California 91311 (818) 886-MRVC (6782)

www.mrv.com